DSGN™ | Glue Down

Technical Data & Installation

Product Overview

AVA DSGN is a premium, glue down Luxury Vinyl Tile (LVT) product that features a full line of popular wood looks and unique stone designs that provide a wide range of beautiful flooring options for all applications. DSGN is constructed with a durable wear layer and topped with a UV-cured polyurethane finish, making it an ideal flooring product for corporate offices, retail spaces, hospitality and a variety of other commercial environments. DSGN glue down is the perfect long term solution for heavy traffic areas, including areas with heavy rolling loads. DSGN is manufactured from bio-based materials, FloorScore certified, GreenGuard Gold certified, Declare labeled, REACH compliant and has published UL Certified Environmental and Health Product Declaration Forms (EPDs & HPDs), making it a sustainable product selection in the LVT category.

Features & Benefits

- **Easy To Maintain**
- **UV-Cured Urethane Finish**
- **Extremely Durable**
- **Phthlate Free Virgin Vinyl**
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**
- **Declare™ Labeled**
- **UL® Certified HPDs & EPDs**

Technical Data

Dimensions:	**6" x 48" x 2.5mm Planks** **12" x 24" x 2.5mm Tiles**
Wear Layer Thickness:	**20 mil (0.5mm)**
Finish:	**UV-Cured Polyurethane Coating**
Surface - Planks:	**Embossed w/ Microbevel**
Surface - Tiles:	**Embossed w/ Straight Edge**
Quantity / Carton:	**16 Planks, 18 Tiles**
Weight / Carton:	**29 lbs. (Planks), 33 lbs. (Tiles)**
ASTM F1700 - Solid Vinyl Tile:	**Class III, Type B**
ASTM F1914 - Residual Indentation:	**Passes, <10%**
ASTM F137 - Flexibility:	**Passes, 25.4mm Mandrel**
ASTM F2199 - Dimensional Stability:	**Passes, <0.020 in. per Lin. Ft.**
ASTM F925 - Chemical Resistance:	**Passes (ask for chart)**
ASTM F1514 - Heat Color Stability:	**Passes, < Δ8E**
ASTM F1515 - Light Color Stability:	**Passes, < Δ8E**
ASTM F970 - Static Load Limit:	**Passes, 250 lbs.**
ASTM F970 - Modified for Max Weight:	**1,200 lbs.**
ASTM E648 (NFPA 253) - Critical Radiant Flux:	**Class I, >0.45 W/cm²**
ASTM E662 (NFPA 258) - Smoke Density:	**Passes, <450**
CAN ULC - FIre Rating:	**135 (FSR), 230 (SDC)**
ASTM D2047 - Slip Resistance:	**>0.6 (dry)**
CHPS / CA Section 01350:	**Compliant**
Acclimation Time:	**48 Hours**
Storage & Acclimation Conditions:	**65° - 85° F**

Additional Information

Approved Adhesives
Novalis NFA T226 Transitional Adhesive
Gold Series MA 2000 Spray Adhesive
Gold Series MW 3010 MS Adhesive

Accessories
Matching flooring accessories and silicone caulk are available for DSGN Glue Down. For more information, contact a sales agent or e-mail **sales@avaflor.com** for more information.

Sales Support
AVA products are sold through a nationwide network of sales agents. For more information, visit **avaflor.com** or send an e-mail to **sales@AVAflor.com**

Technical Support
Additional technical resources and documents are available online at **AVAflor.com**. For additional technical support, send an e-mail to **support@AVAflor.com**

1. PRE-INSTALLATION

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery.
- Do not remove material from packaging or store outside of packaging until ready for installation.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and continuously after installation.
- Protect installation area from extreme climate changes, such as heat, freezing and humidity, as well as direct sunlight for at least 48 hours prior to, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

2. PRODUCT LIMITATIONS

Do not install materials directly over cushioned vinyl, hardwood flooring, cork flooring, rubber flooring or asphaltic materials. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. Do not install outdoors or in areas that may be exposed to repeated and sustained UV light, as product may fade, discolor or experience excessive movement. When installing in wet areas, use a waterproof adhesive, such as the Gold Series MW 3010. Material may be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals – ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

3. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter.

All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to adhesive installation. In some situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. When mechanically preparing concrete and silica containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Do not use solvent/citrus based adhesive removers. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Following the removal of existing materials, mechanical preparation and/or cleaning, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All potentially porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity requirements are considered non-porous. Ensure that all non-porous substrates are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed.

All substrates must have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible repair product, patch or self-leveling underlayment installed to prevent telegraphing and installation issues.

CEMENTITIOUS SUBSTRATES

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

Moisture Limits

NFA T226 Transitional Adhesive
- 85% RH
- 5 lbs. MVER

MA 2000 Spray Adhesive
- 95% RH
- 10 lbs. MVER

MW 3010 MS Adhesive
- 95% RH
- 8 lbs. MVER

New or existing concrete substrates on all grade levels must be tested in

accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor

cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all materialprior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually 48 hours). Remove all protective coverings prior to cleaning. Sweep, dust

mop and/or vacuum flooring to remove all dirt, dust or debris.

Mix a pH neutral, film-free and streak-free cleaner (such as the Hilway Direct Neutral Cleaner) with clean, potable water at an initial cleaning dilution ratio (~1:20 - 1:40 ratio). Use a clean microfiber mop or equivalent to damp mop flooring installation and allow cleaning solution to stand on material for 5-10 minutes. Avoid wet mopping, puddling or pooling cleaning liquid on material.

For heavily soiled floors, Use a low-speed (180 – 360 RPM) single swing disc scrubber or an auto-scrubber with 3M 5100 Red Cleaning pad(s) to scrub the floor while wet.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

Do not use detergents, abrasive cleaners or "mop and shine" type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar, electric brooms with hard plastic bottoms or no padding and vacuums which have a rubber bumper, as this may cause discoloration, scratching or loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

8. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. **Do not use nylon/hard plastic glides or casters.**

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation, wear, scratching and other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Floor protectors must have a flat contact point of at least 1 sq. in. or 1.125 in. diameter and must cover the entire bottom surface of the furniture leg. **Do not use nylon/hard plastic floor protectors or furniture feet.**

Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Prevent water and moisture from accumulating underneath walk-off mats. Ensure mats are manufactured with non-staining backs to prevent discoloration.

9. WARRANTY

AVA provides a 20 Year Commercial Warranty and a Lifetime Residential Warranty for all DSGN glue down flooring products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.

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If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

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WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust,

dirt, debris and contaminants. All minor cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all materialprior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually 48 hours). Remove all protective

coverings prior to cleaning. Sweep, dust mop and/or vacuum flooring to remove all dirt, dust or debris.

Mix a pH neutral, film-free and streak-free cleaner (such as the Hilway Direct Neutral Cleaner) with clean, potable water at an initial cleaning dilution ratio (~1:20 - 1:40 ratio). Use a clean microfiber mop or equivalent to damp mop flooring installation and allow cleaning solution to stand on material for 5-10 minutes. Avoid wet mopping, puddling or pooling cleaning liquid on material.

For heavily soiled floors, Use a low-speed (180 – 360 RPM) single swing disc scrubber or an auto-scrubber with 3M 5100 Red Cleaning pad(s) to scrub the floor while wet.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

Do not use detergents, abrasive cleaners or “mop and shine” type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar, electric brooms with hard plastic bottoms or no padding and vacuums which have a rubber bumper, as this may cause discoloration, scratching or loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

8. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. **Do not use nylon/hard plastic glides or casters.**

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation, wear, scratching and other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Floor protectors must have a flat contact point of at least 1 sq. in. or 1.125 in. diameter and must cover the entire bottom surface of the furniture leg. **Do not use nylon/hard plastic floor protectors or furniture feet.**

Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Prevent water and moisture from accumulating underneath walk-off mats. Ensure mats are manufactured with non-staining backs to prevent discoloration.

9. WARRANTY

AVA provides a 20 Year Commercial Warranty and a Lifetime Residential Warranty for all DSGN glue down flooring products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.

DSGN12 | Glue Down

Technical Data & Installation

Product Overview

AVA DSGN12 is a premium, glue down Luxury Vinyl Tile (LVT) product that features a full line of popular wood looks and unique stone designs that provide a wide range of beautiful flooring options for all applications. DSGN is constructed with a durable wear layer and topped with a UV-cured polyurethane finish, making it an ideal flooring product for corporate offices, retail spaces, hospitality and a variety of other commercial environments. DSGN12 glue down is the perfect long term solution for heavy traffic areas, including areas with heavy rolling loads. DSGN12 is manufactured from bio-based materials, FloorScore certified, GreenGuard Gold certified, Declare labeled, REACH compliant and has published UL Certified Environmental and Health Product Declaration Forms (EPDs & HPDs), making it a sustainable product selection in the LVT category.

Features & Benefits

- **Easy To Maintain**
- **UV-Cured Urethane Finish**
- **Extremely Durable**
- **Phthlate Free Virgin Vinyl**
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**
- **Declare™ Labeled**
- **UL® Certified HPDs & EPDs**

Technical Data

Dimensions:	**6" x 48" x 2.5mm Planks** **12" x 24" x 2.5mm Tiles**
Wear Layer Thickness:	**20 mil (0.5mm)**
Finish:	**UV-Cured Polyurethane Coating**
Surface - Planks:	**Embossed w/ Microbevel**
Surface - Tiles:	**Embossed w/ Straight Edge**
Quantity / Carton:	**16 Planks, 18 Tiles**
Weight / Carton:	**29 lbs. (Planks), 33 lbs. (Tiles)**
ASTM F1700 - Solid Vinyl Tile:	**Class III, Type B**
ASTM F1914 - Residual Indentation:	**Passes, <10%**
ASTM F137 - Flexibility:	**Passes, 25.4mm Mandrel**
ASTM F2199 - Dimensional Stability:	**Passes, <0.020 in. per Lin. Ft.**
ASTM F925 - Chemical Resistance:	**Passes (ask for chart)**
ASTM F1514 - Heat Color Stability:	**Passes, < Δ8E**
ASTM F1515 - Light Color Stability:	**Passes, < Δ8E**
ASTM F970 - Static Load Limit:	**Passes, 250 lbs.**
ASTM F970 - Modified for Max Weight:	**1,200 lbs.**
ASTM E648 (NFPA 253) - Critical Radiant Flux:	**Class I, >0.45 W/cm²**
ASTM E662 (NFPA 258) - Smoke Density:	**Passes, <450**
CAN ULC - FIre Rating:	**135 (FSR), 230 (SDC)**
ASTM D2047 - Slip Resistance:	**>0.6 (dry)**
CHPS / CA Section 01350:	**Compliant**
Acclimation Time:	**48 Hours**
Storage & Acclimation Conditions:	**65° - 85° F**

Additional Information

Approved Adhesives
Novalis NFA T226 Transitional Adhesive
Gold Series MA 2000 Spray Adhesive
Gold Series MW 3010 MS Adhesive

Accessories
Matching flooring accessories and silicone caulk are available for DSGN Glue Down. For more information, contact a sales agent or e-mail **sales@avaflor.com** for more information.

Sales Support
AVA products are sold through a nationwide network of sales agents. For more information, visit **avaflor.com** or send an e-mail to **sales@AVAflor.com**

Technical Support
Additional technical resources and documents are available online at **AVAflor.com**. For additional technical support, send an e-mail to **support@AVAflor.com**

1. PRE-INSTALLATION

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery.
- Do not remove material from packaging or store outside of packaging until ready for installation.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and continuously after installation.
- Protect installation area from extreme climate changes, such as heat, freezing and humidity, as well as direct sunlight for at least 48 hours prior to, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

2. PRODUCT LIMITATIONS

Do not install materials directly over cushioned vinyl, hardwood flooring, cork flooring, rubber flooring or asphaltic materials. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. Do not install outdoors or in areas that may be exposed to repeated and sustained UV light, as product may fade, discolor or experience excessive movement. When installing in wet areas, use a waterproof adhesive, such as the GOld Series MW 3010. Material may be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals – ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

3. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter.

All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to adhesive installation. In some situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. When mechanically preparing concrete and silica containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Do not u**se solvent/citrus based adhesive removers. Follow The Resilient Floo**r Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Following the removal of existing materials, mechanical preparation and/or cleaning, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All potentially porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity requirements are considered non-porous. Ensure that all non-porous substrates are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed.

All substrates must have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible repair product, patch or self-leveling underlayment installed to prevent telegraphing and installation issues.

CEMENTITIOUS SUBSTRATES

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

Moisture Limits

NFA T226 Transitional Adhesive
- 85% RH
- 5 lbs. MVER

MA 2000 Spray Adhesive
- 95% RH
- 10 lbs. MVER

MW 3010 MS Adhesive
- 95% RH
- 8 lbs. MVER

New or existing concrete substrates

on all grade levels must be tested in accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN12, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust,

dirt, debris and contaminants. All minor cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN12 should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all material prior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually

48 hours). Remove all protective coverings prior to cleaning. Sweep, dust mop and/or vacuum flooring to remove all dirt, dust or debris.

Mix a pH neutral, film-free and streak-free cleaner (such as the Hilway Direct Neutral Cleaner) with clean, potable water at an initial cleaning dilution ratio (~1:20 - 1:40 ratio). Use a clean microfiber mop or equivalent to damp mop flooring installation and allow cleaning solution to stand on material for 5-10 minutes. Avoid wet mopping, puddling or pooling cleaning liquid on material.

For heavily soiled floors, Use a low-speed (180 – 360 RPM) single swing disc scrubber with a 3M 4100 White Polishing Pad or an auto-scrubber with 3M 5100 Red Cleaning pads to scrub the floor while wet.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

Do not use detergents, abrasive cleaners or “mop and shine” type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar, electric brooms with hard plastic bottoms or no padding and vacuums which have a rubber bumper, as this may cause discoloration, scratching or loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

8. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. Do not use nylon/hard plastic glides or casters.

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation, wear, scratching and other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Floor protectors must have a flat contact point of at least 1 sq. in. or 1.125 in. diameter and must cover the entire bottom surface of the furniture leg. Do not use nylon/hard plastic floor protectors or furniture feet.

Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Prevent water and moisture from accumulating underneath walk-off mats. Ensure mats are manufactured with non-staining backs to prevent discoloration.

9. WARRANTY

AVA provides a Limited 5 Year Heavy Commercial, 10 Year Light Commercial Warranty and a Lifetime Residential Warranty for all DSGN12 glue down flooring products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.

DSGN12 | Glue Down

Technical Data & Installation

Product Overview

AVA DSGN12 is a premium, glue down Luxury Vinyl Tile (LVT) product that features a full line of popular wood looks and unique stone designs that provide a wide range of beautiful flooring options for all applications. DSGN is constructed with a durable wear layer and topped with our proprietary AMP polyurethane coating, making it an ideal flooring product for corporate offices, retail spaces, hospitality and a variety of other commercial environments. DSGN12 glue down is the perfect long term solution for heavy traffic areas, including areas with heavy rolling loads. DSGN12 is manufactured from bio-based materials, FloorScore certified, GreenGuard Gold certified, Declare labeled, REACH compliant and has published UL Certified Environmental and Health Product Declaration Forms (EPDs & HPDs), making it a sustainable product selection in the LVT category.

Features & Benefits

- **Easy To Maintain**
- **UV-Cured Urethane Finish**
- **Extremely Durable**
- **Phthlate Free Virgin Vinyl**
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**
- **Declare™ Labeled**
- **UL® Certified HPDs & EPDs**

Technical Data

Dimensions:	**6" x 48" x 2.5mm Planks**
	12" x 24" x 2.5mm Tiles
Wear Layer Thickness:	**20 mil (0.5mm)**
Finish:	**UV-Cured Polyurethane Coating**
Surface - Planks:	**Embossed w/ Microbevel**
Surface - Tiles:	**Embossed w/ Straight Edge**
Quantity / Carton:	**16 Planks, 18 Tiles**
Weight / Carton:	**29 lbs. (Planks), 33 lbs. (Tiles)**
ASTM F1700 - Solid Vinyl Tile:	**Class III, Type B**
ASTM F1914 - Residual Indentation:	**Passes, <10%**
ASTM F137 - Flexibility:	**Passes, 25.4mm Mandrel**
ASTM F2199 - Dimensional Stability:	**Passes, <0.020 in. per Lin. Ft.**
ASTM F925 - Chemical Resistance:	**Passes (ask for chart)**
ASTM F1514 - Heat Color Stability:	**Passes, < Δ8E**
ASTM F1515 - Light Color Stability:	**Passes, < Δ8E**
ASTM F970 - Static Load Limit:	**Passes, 250 lbs.**
ASTM F970 - Modified for Max Weight:	**1,200 lbs.**
ASTM E648 (NFPA 253) - Critical Radiant Flux:	**Class I, >0.45 W/cm²**
ASTM E662 (NFPA 258) - Smoke Density:	**Passes, <450**
CAN ULC - FIre Rating:	**135 (FSR), 230 (SDC)**
ASTM D2047 - Slip Resistance:	**>0.6 (dry)**
CHPS / CA Section 01350:	**Compliant**
Acclimation Time:	**48 Hours**
Storage & Acclimation Conditions:	**65° - 85° F**

Additional Information

Approved Adhesives
Novalis NFA T226 Transitional Adhesive
Gold Series MA 2000 Spray Adhesive
Gold Series MW 3010 MS Adhesive

Accessories
Matching flooring accessories and silicone caulk are available for DSGN Glue Down. For more information, contact a sales agent or e-mail **sales@avaflor.com** for more information.

Sales Support
AVA products are sold through a nationwide network of sales agents. For more information, visit **avaflor.com** or send an e-mail to **sales@AVAflor.com**

Technical Support
Additional technical resources and documents are available online at **AVAflor.com**. For additional technical support, send an e-mail to **support@AVAflor.com**

1. PRE-INSTALLATION

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery.
- Do not remove material from packaging or store outside of packaging until ready for installation.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and continuously after installation.
- Protect installation area from extreme climate changes, such as heat, freezing and humidity, as well as direct sunlight for at least 48 hours prior to, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

2. PRODUCT LIMITATIONS

Do not install materials directly over cushioned vinyl, hardwood flooring, cork flooring, rubber flooring or asphaltic materials. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. Do not install outdoors or in areas that may be exposed to repeated and sustained UV light, as product may fade, discolor or experience excessive movement. When installing in wet areas, use a waterproof adhesive, such as the GOld Series MW 3010. Material may be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals – ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

3. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter.

All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to adhesive installation. In some situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. When mechanically preparing concrete and silica containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Do not u**se solvent/citrus based adhesive removers. Follow The Resilient Floo**r Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Following the removal of existing materials, mechanical preparation and/or cleaning, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All potentially porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity requirements are considered non-porous. Ensure that all non-porous substrates are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed.

All substrates must have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible repair product, patch or self-leveling underlayment installed to prevent telegraphing and installation issues.

CEMENTITIOUS SUBSTRATES

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

Moisture Limits

NFA T226 Transitional Adhesive
- 85% RH
- 5 lbs. MVER

MA 2000 Spray Adhesive
- 95% RH
- 10 lbs. MVER

MW 3010 MS Adhesive
- 95% RH
- 8 lbs. MVER

New or existing concrete substrates

on all grade levels must be tested in accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN12, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust,

dirt, debris and contaminants. All minor cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN12 should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all material prior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually

48 hours). Remove all protective coverings prior to cleaning. Sweep, dust mop and/or vacuum flooring to remove all dirt, dust or debris.

Mix a pH neutral, film-free and streak-free cleaner (such as the Hilway Direct Neutral Cleaner) with clean, potable water at an initial cleaning dilution ratio (~1:20 - 1:40 ratio). Use a clean microfiber mop or equivalent to damp mop flooring installation and allow cleaning solution to stand on material for 5-10 minutes. Avoid wet mopping, puddling or pooling cleaning liquid on material.

For heavily soiled floors, Use a low-speed (180 – 360 RPM) single swing disc scrubber with a 3M 4100 White Polishing Pad or an auto-scrubber with 3M 5100 Red Cleaning pads to scrub the floor while wet.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

Do not use detergents, abrasive cleaners or “mop and shine” type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar, electric brooms with hard plastic bottoms or no padding and vacuums which have a rubber bumper, as this may cause discoloration, scratching or loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

8. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. Do not use nylon/hard plastic glides or casters.

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Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

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Quantity / Carton:	**16 Planks, 18 Tiles**
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Do not use solvent/citrus based adhesive removers. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

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All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

Moisture Limits

NFA T226 Transitional Adhesive
- 85% RH
- 5 lbs. MVER

MA 2000 Spray Adhesive
- 95% RH
- 10 lbs. MVER

MW 3010 MS Adhesive
- 95% RH
- 8 lbs. MVER

New or existing concrete substrates on all grade levels must be tested in

accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor

cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all materialprior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually 48 hours). Remove all protective coverings prior to cleaning. Sweep, dust

mop and/or vacuum flooring to remove all dirt, dust or debris.

Mix a pH neutral, film-free and streak-free cleaner (such as the Hilway Direct Neutral Cleaner) with clean, potable water at an initial cleaning dilution ratio (~1:20 - 1:40 ratio). Use a clean microfiber mop or equivalent to damp mop flooring installation and allow cleaning solution to stand on material for 5-10 minutes. Avoid wet mopping, puddling or pooling cleaning liquid on material.

For heavily soiled floors, Use a low-speed (180 – 360 RPM) single swing disc scrubber or an auto-scrubber with 3M 5100 Red Cleaning pad(s) to scrub the floor while wet.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

Do not use detergents, abrasive cleaners or "mop and shine" type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar, electric brooms with hard plastic bottoms or no padding and vacuums which have a rubber bumper, as this may cause discoloration, scratching or loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

8. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. **Do not use nylon/hard plastic glides or casters.**

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation, wear, scratching and other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Floor protectors must have a flat contact point of at least 1 sq. in. or 1.125 in. diameter and must cover the entire bottom surface of the furniture leg. **Do not use nylon/hard plastic floor protectors or furniture feet.**

Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Prevent water and moisture from accumulating underneath walk-off mats. Ensure mats are manufactured with non-staining backs to prevent discoloration.

9. WARRANTY

AVA provides a 20 Year Commercial Warranty and a Lifetime Residential Warranty for all DSGN glue down flooring products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.

DSGN™ | Glue Down

Technical Data & Installation

Product Overview

AVA DSGN is a premium, glue down Luxury Vinyl Tile (LVT) product that features a full line of popular wood looks and unique stone designs that provide a wide range of beautiful flooring options for all applications. DSGN is constructed with a durable wear layer and topped with our proprietary AMP polyurethane coating, making it an ideal flooring product for corporate offices, retail spaces, hospitality and a variety of other commercial environments. DSGN glue down is the perfect long term solution for heavy traffic areas, including areas with heavy rolling loads. DSGN is manufactured from bio-based materials, FloorScore certified, GreenGuard Gold certified, Declare labeled, REACH compliant and has published UL Certified Environmental and Health Product Declaration Forms (EPDs & HPDs), making it a sustainable product selection in the LVT category.

Features & Benefits

- **Easy To Maintain**
- **UV-Cured Urethane Finish**
- **Extremely Durable**
- **Phthlate Free Virgin Vinyl**
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**
- **Declare™ Labeled**
- **UL® Certified HPDs & EPDs**

Technical Data

Dimensions:	**6" x 48" x 2.5mm Planks**
	12" x 24" x 2.5mm Tiles
Wear Layer Thickness:	**20 mil (0.5mm)**
Finish:	**UV-Cured Polyurethane Coating**
Surface - Planks:	**Embossed w/ Microbevel**
Surface - Tiles:	**Embossed w/ Straight Edge**
Quantity / Carton:	**16 Planks, 18 Tiles**
Weight / Carton:	**29 lbs. (Planks), 33 lbs. (Tiles)**
ASTM F1700 - Solid Vinyl Tile:	**Class III, Type B**
ASTM F1914 - Residual Indentation:	**Passes, <10%**
ASTM F137 - Flexibility:	**Passes, 25.4mm Mandrel**
ASTM F2199 - Dimensional Stability:	**Passes, <0.020 in. per Lin. Ft.**
ASTM F925 - Chemical Resistance:	**Passes (ask for chart)**
ASTM F1514 - Heat Color Stability:	**Passes, < Δ8E**
ASTM F1515 - Light Color Stability:	**Passes, < Δ8E**
ASTM F970 - Static Load Limit:	**Passes, 250 lbs.**
ASTM F970 - Modified for Max Weight:	**1,200 lbs.**
ASTM E648 (NFPA 253) - Critical Radiant Flux:	**Class I, >0.45 W/cm²**
ASTM E662 (NFPA 258) - Smoke Density:	**Passes, <450**
CAN ULC - FIre Rating:	**135 (FSR), 230 (SDC)**
ASTM D2047 - Slip Resistance:	**>0.6 (dry)**
CHPS / CA Section 01350:	**Compliant**
Acclimation Time:	**48 Hours**
Storage & Acclimation Conditions:	**65° - 85° F**

Additional Information

Approved Adhesives
Novalis NFA T226 Transitional Adhesive
Gold Series MA 2000 Spray Adhesive
Gold Series MW 3010 MS Adhesive

Accessories
Matching flooring accessories and silicone caulk are available for DSGN Glue Down. For more information, contact a sales agent or e-mail **sales@avaflor.com** for more information.

Sales Support
AVA products are sold through a nationwide network of sales agents. For more information, visit **avaflor.com** or send an e-mail to **sales@AVAflor.com**

Technical Support
Additional technical resources and documents are available online at **AVAflor.com**. For additional technical support, send an e-mail to **support@AVAflor.com**

1. PRE-INSTALLATION

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery.
- Do not remove material from packaging or store outside of packaging until ready for installation.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and continuously after installation.
- Protect installation area from extreme climate changes, such as heat, freezing and humidity, as well as direct sunlight for at least 48 hours prior to, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

2. PRODUCT LIMITATIONS

Do not install materials directly over cushioned vinyl, hardwood flooring, cork flooring, rubber flooring or asphaltic materials. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. Do not install outdoors or in areas that may be exposed to repeated and sustained UV light, as product may fade, discolor or experience excessive movement. When installing in wet areas, use a waterproof adhesive, such as the Gold Series MW 3010. Material may be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals – ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

3. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter.

All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to adhesive installation. In some situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. When mechanically preparing concrete and silica containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Do not use solvent/citrus based adhesive removers. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Following the removal of existing materials, mechanical preparation and/or cleaning, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All potentially porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity requirements are considered non-porous. Ensure that all non-porous substrates are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed.

All substrates must have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible repair product, patch or self-leveling underlayment installed to prevent telegraphing and installation issues.

CEMENTITIOUS SUBSTRATES

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

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New or existing concrete substrates

on all grade levels must be tested in accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

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Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

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When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust,

dirt, debris and contaminants. All minor cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all materialprior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually 48 hours). Remove all protective

coverings prior to cleaning. Sweep, dust mop and/or vacuum flooring to remove all dirt, dust or debris.

Mix a pH neutral, film-free and streak-free cleaner (such as the Hilway Direct Neutral Cleaner) with clean, potable water at an initial cleaning dilution ratio (~1:20 - 1:40 ratio). Use a clean microfiber mop or equivalent to damp mop flooring installation and allow cleaning solution to stand on material for 5-10 minutes. Avoid wet mopping, puddling or pooling cleaning liquid on material.

For heavily soiled floors, Use a low-speed (180 – 360 RPM) single swing disc scrubber or an auto-scrubber with 3M 5100 Red Cleaning pad(s) to scrub the floor while wet.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

Do not use detergents, abrasive cleaners or “mop and shine” type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar, electric brooms with hard plastic bottoms or no padding and vacuums which have a rubber bumper, as this may cause discoloration, scratching or loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

8. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. **Do not use nylon/hard plastic glides or casters.**

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation, wear, scratching and other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Floor protectors must have a flat contact point of at least 1 sq. in. or 1.125 in. diameter and must cover the entire bottom surface of the furniture leg. **Do not use nylon/hard plastic floor protectors or furniture feet.**

Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Prevent water and moisture from accumulating underneath walk-off mats. Ensure mats are manufactured with non-staining backs to prevent discoloration.

9. WARRANTY

AVA provides a 20 Year Commercial Warranty and a Lifetime Residential Warranty for all DSGN glue down flooring products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.

DSGN™ | Glue Down

Technical Data & Installation

Product Overview

AVA DSGN is a premium, glue down Luxury Vinyl Tile (LVT) product that features a full line of popular wood looks and unique stone designs that provide a wide range of beautiful flooring options for all applications. DSGN is constructed with a durable wear layer and topped with our proprietary AMP polyurethane coating, making it an ideal flooring product for corporate offices, retail spaces, hospitality and a variety of other commercial environments. DSGN glue down is the perfect long term solution for heavy traffic areas, including areas with heavy rolling loads. DSGN is manufactured from bio-based materials, FloorScore certified, GreenGuard Gold certified, Declare labeled, REACH compliant and has published UL Certified Environmental and Health Product Declaration Forms (EPDs & HPDs), making it a sustainable product selection in the LVT category.

Features & Benefits

- **Easy To Maintain**
- **UV-Cured Urethane Finish**
- **Extremely Durable**
- **Phthlate Free Virgin Vinyl**
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**
- **Declare™ Labeled**
- **UL® Certified HPDs & EPDs**

Technical Data

Dimensions:	**6" x 48" x 2.5mm Planks**
	12" x 24" x 2.5mm Tiles
Wear Layer Thickness:	**20 mil (0.5mm)**
Finish:	**UV-Cured Polyurethane Coating**
Surface - Planks:	**Embossed w/ Microbevel**
Surface - Tiles:	**Embossed w/ Straight Edge**
Quantity / Carton:	**16 Planks, 18 Tiles**
Weight / Carton:	**29 lbs. (Planks), 33 lbs. (Tiles)**
ASTM F1700 - Solid Vinyl Tile:	**Class III, Type B**
ASTM F1914 - Residual Indentation:	**Passes, <10%**
ASTM F137 - Flexibility:	**Passes, 25.4mm Mandrel**
ASTM F2199 - Dimensional Stability:	**Passes, <0.020 in. per Lin. Ft.**
ASTM F925 - Chemical Resistance:	**Passes (ask for chart)**
ASTM F1514 - Heat Color Stability:	**Passes, < Δ8E**
ASTM F1515 - Light Color Stability:	**Passes, < Δ8E**
ASTM F970 - Static Load Limit:	**Passes, 250 lbs.**
ASTM F970 - Modified for Max Weight:	**1,200 lbs.**
ASTM E648 (NFPA 253) - Critical Radiant Flux:	**Class I, >0.45 W/cm²**
ASTM E662 (NFPA 258) - Smoke Density:	**Passes, <450**
CAN ULC - FIre Rating:	**135 (FSR), 230 (SDC)**
ASTM D2047 - Slip Resistance:	**>0.6 (dry)**
CHPS / CA Section 01350:	**Compliant**
Acclimation Time:	**48 Hours**
Storage & Acclimation Conditions:	**65° - 85° F**

Additional Information

Approved Adhesives
Novalis NFA T226 Transitional Adhesive
Gold Series MA 2000 Spray Adhesive
Gold Series MW 3010 MS Adhesive

Accessories
Matching flooring accessories and silicone caulk are available for DSGN Glue Down. For more information, contact a sales agent or e-mail **sales@avaflor.com** for more information.

Sales Support
AVA products are sold through a nationwide network of sales agents. For more information, visit **avaflor.com** or send an e-mail to **sales@AVAflor.com**

Technical Support
Additional technical resources and documents are available online at **AVAflor.com**. For additional technical support, send an e-mail to **support@AVAflor.com**

1. PRE-INSTALLATION

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery.
- Do not remove material from packaging or store outside of packaging until ready for installation.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and continuously after installation.
- Protect installation area from extreme climate changes, such as heat, freezing and humidity, as well as direct sunlight for at least 48 hours prior to, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

2. PRODUCT LIMITATIONS

Do not install materials directly over cushioned vinyl, hardwood flooring, cork flooring, rubber flooring or asphaltic materials. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. Do not install outdoors or in areas that may be exposed to repeated and sustained UV light, as product may fade, discolor or experience excessive movement. When installing in wet areas, use a waterproof adhesive, such as the Gold Series MW 3010. Material may be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals – ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

3. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and all other extraneous coating, film, material or foreign matter.

All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to adhesive installation. In some situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. When mechanically preparing concrete and silica containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Do not use solvent/citrus based adhesive removers. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Following the removal of existing materials, mechanical preparation and/or cleaning, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All potentially porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity requirements are considered non-porous. Ensure that all non-porous substrates are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed.

All substrates must have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible repair product, patch or self-leveling underlayment installed to prevent telegraphing and installation issues.

CEMENTITIOUS SUBSTRATES

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. When flooring is being installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) of 5 or more should be smoothed with a self-leveling underlayment or a cementitious patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

Moisture Limits

NFA T226 Transitional Adhesive
- 85% RH
- 5 lbs. MVER

MA 2000 Spray Adhesive
- 95% RH
- 10 lbs. MVER

MW 3010 MS Adhesive
- 95% RH
- 8 lbs. MVER

New or existing concrete substrates on all grade levels must be tested in

accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

LIGHTWEIGHT/GYPSUM SUBSTRATES

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

WOOD SUBSTRATES

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as CDX, OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Do not use preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates. This may require abrasion of the resinous coating.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and/or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the specific requirements of the adhesive being used to install the material. As such, refer to the adhesive requirements for existing flooring substrates and ensure all adhesive requirements and guidelines are followed.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is no higher than 70° F (21° C) 48 hours prior to and during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

SOUND CONTROL SUBSTRATES

Sound control mats or underlayments must be compatible with both the original substrate and the flooring material to be installed over it. Sound control products must be 5mm in thickness or less and must be made from a high quality recycled rubber or foam material. Adhesives used to install sound control mats or underlayments must be fully cured prior to installing DSGN, in order to prevent shifting, telegraphing and substrate or installation issues.

For more information, please see the AVA Sound Control technical bulletin.

4. CONSTRUCTION JOINTS & CRACKS

All cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor

cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 3/64". Construction joints, expansion joints or cracks wider than 3/64" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of ¼". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating construction joints and cracks.

5. INSTALLATION PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and the proper trowel type and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. DSGN should be installed in an ashlar, brick or random pattern to ensure tight seams and an overall ideal visual appearance.

Inspect all materialprior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons within the same lot to ensure a consistent appearance. Avoid blending materials from different lots within the same room, as minor variations in color, texture or sheen may occur. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. **Material installed with obvious visual defects will not be covered under warranty**.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation center line or other designated starting line. Dry-lay several pieces to establish an ideal installation layout, ensuring perimeter pieces are as equal in size as possible. Planks should be at least 9" in length and at least half the width of the plank, while tiles should be at least 6" in length and width. Adjust center line and/or starting line to accommodate these restrictions as much as possible.

6. GLUE-DOWN INSTALLATION

Apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times and flash times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow adhesive instructions based on substrate porosity (porous or non-porous).

Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When installing in a random pattern, ensure all end joints are staggered by at least 6" and that patterns are completely randomized every 3 rows to avoid a "stair stepping" or "T" affect. Ensure that no obvious pattern repeats emerge.

When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. **Working on material that is installed into wet adhesive could cause adhesive to displace.** When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement.

Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller.

Periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of material. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent-based cleaners directly to material.

7. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance (usually 48 hours). Remove all protective coverings prior to cleaning. Sweep, dust

mop and/or vacuum flooring to remove all dirt, dust or debris.

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Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

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