ROPPE.

TECHNICAL DATA SHEET

subleveler™

SUBFLOOR LEVELING SYSTEM

Product Description

Roppe's Subleveler system is a solid, homogeneous, thermoplastic product made to level or ramp resilient flooring products. Subleveler is an extruded and molded product that provides a tough finish that is resistant to indentation and gouging. Subleveler indoor use in commercial applications and can be installed directly over concrete, wood, metal and existing flooring. Subleveler is flexible, which makes it easy to install when compared to time consuming and labor intensive cementitious alternatives. Subleveler is tapered to provide a smooth transition between uneven substrate, creating a surface that can immediately accept new flooring without the interruption of foot traffic. Subleveler is ideal for all high-traffic applications. Sublelever is manufactured from 100% post-industrial waste, providing additional environmental advantages.

Features

- **Extremely Durable**
- **Extremely Flexible**
- **Fast & Easy Installation**
- **Available in Wide Variety of Sizes**
- **Made from 100% Recycled Materials**
- **Recyclable** *(IMPACT Recycling Program)*
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**

Technical Data

Nominal Starting Thickness:	**0.040" (1.016 mm)**
Nominal Final Thickness:	**1/8" (3.2 mm)** **1/4" (6.35 mm)** **3/8" (9.53 mm)** **1/2" (12.7 mm)**
Nominal Width:	**48" (1.219 m)**
Nominal Length:	**12" (30.48 cm)** **18" (45.72 cm)**
LEED v2009 IEQ Credit 4.1:	**Qualifies**
ASTM E84 - Flammability:	**Class A**
ASTM E648 (NFPA 253) - Critical Radiant Flux:	**Class I, > 0.45 W/cm²**
ASTM E662 (NFPA 258) - Smoke Density:	**Passes, <450**
ASTM F925 - Chemical Resistance:	**Passes** ***(chart available)***
ASTM F970 - Static Load Limit:	**Passes, 250 PSI**
ASTM F970 - (Modified) Max Weight:	**1000 PSI**
Acclimation Time:	**48 Hours**
Storage & Acclimation Temperature:	**65° - 85° F**

Additional Information

Approved Adhesives
AW-510 Acrylic Wet-Set Adhesive
MS-700 Modified Silane Adhesive
EW-710 Epoxy Wet-Set Adhesive

Availability, Cost & Samples
Roppe Flooring products are sold through distribution. To locate the nearest distributor, visit **roppe.com** or send an e-mail to **support@roppe.com.**

Technical Documents & Support
Additional product resources and technical documents are available online at **roppe.com**. For additional technical support, send an e-mail to **solutions@rhctechnical.com**.

Sublevelers

#301

Starting Thickness: **0.040" (1 mm)**
Cut Mark Thicknesses: **3/32" (2.39 mm)**
1/8" (3.17 mm)
3/16" (4.76 mm)
1/4" (6.35 mm)
5/16" (7.93 mm)
Final Thickness: **3/8" (9.53 mm)**
Width: **48" (1.22 m)**
Length: **12" (30.48 cm)**
Carton Quantity: **8 Pieces**
Weight Per Piece: **7.5 lbs.**

#302

Starting Thickness: **0.040" (1 mm)**
Cut Mark Thicknesses: **3/32" (2.39 mm)**
1/8" (3.17 mm)
3/16" (4.76 mm)
Final Thickness: **1/4" (6.35 mm)**
Width: **12" (30.48 cm)**
Length: **48" (1.22 m) Sections**
Carton Quantity: **8 Pieces**
Weight Per Piece: **6.37 lbs.**

#303

Starting Thickness: **0.040" (1 mm)**
Cut Mark Thicknesses: **3/32" (2.39 mm)**
1/8" (3.17 mm)
3/16" (4.76 mm)
1/4" (6.35 mm)
5/16" (7.93 mm)
3/8" (9.53 mm)
Final Thickness: **1/2" (12.7 mm)**
Width: **48" (1.22 m)**
Length: **18" (45.73 cm)**
Carton Quantity: **8 Pieces**
Weight Per Piece: **18 lbs.**

#304

Starting Thickness: **0.040" (1 mm)**
Final Thickness: **1/8" (3.17 mm)**
Width: **12" (30.48 cm)**
Length: **48" (1.22 m) Sections**
Carton Quantity: **8 Pieces**
Weight Per Piece: **3.43 lbs.**

1. PRE-INSTALLATION CHECKLIST

- Consult all associated product literature concerning installation and warranty prior to installation.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Inspect all materials to ensure there is no damage.
- Do not stack pallets to avoid damage.
- Ensure installation area and material storage temperatures are between 65° F (19° C) and 85° F (30° C) and 40% - 65% RH for at least 48 hours before, during and after installation.
- Ensure HVAC system is operational and fully functioning at normal operating conditions 48 hours prior to, during and 48 hours after installation.
- Protect installation area from extreme temperature changes, such as heat and freezing, as well as direct sunlight for at least 48 hours before, during and after installation.
- Ensure all vents, walls, moldings and/or doorways are protected with tape or plastic prior to installation.
- Do not proceed with installation until all conditions have been met.

2. PRODUCT LIMITATIONS

Do not install materials over LVT, cushioned vinyl, hardwood flooring, cork, rubber, or asphaltic materials. Do not install flooring materials in outdoor areas and in or around commercial kitchens. 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. 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 applicable ACI and RFCI guidelines. Substrates must 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 any other extraneous coating, film, material or foreign matter.

All substrates must have any and all existing adhesives, materials, contaminants or bond-breakers mechanically removed via scraping, sanding, grinding or buffing with a 25 grit DiamaBrush Prep Plus tool prior to adhesive installation. In extreme situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, 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 porous substrates must be tested per ASTM F3191 to confirm porosity. Use a pipette or equivalent to conduct three tests by placing a .05 mL (1/4" wide) droplet of clean, potable water onto the surface. If the substrate absorbs water within 60 seconds, the substrate is considered porous. Conduct 3 tests for the first 3000 sq. ft. and one for each additional 2000 sq. ft., at least one per room. All other substrates that do not meet this requirement are considered non-porous. Ensure that all non-porous substrates are not contaminated with any aforementioned contaminates.

It is recommended that all substrates 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 cementitious patch (such as the Excelsior CP-300) or self-leveling underlayment (such as the Excelsior SU-310) installed to flatten the installation area.

Do not use solvent/citrus based adhesive removers prior to installation. 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 OSHA standards.

CONCRETE SUBSTRATES

All concrete must have a minimum compressive strength of 3500 PSI and be prepared in accordance with ASTM F710. When flooring is being installed directly over concrete, concrete surfaces that have an ICRI Concrete Surface Profile (CSP) over 4 should be flattened with a self-leveling underlayment or a 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.

Adhesive RH Limits

AW-510 Acrylic Wet-Set: **90% RH**

MS-700 Modified Silane: **95% RH**

EW-710 Epoxy Wet-Set: **90% RH**

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

Adhesive MVER Limits

AW-510 Acrylic Wet-Set: **6 lbs.**

MS-700 Modified Silane: **10 lbs.**

EW-710 Epoxy Wet-Set: **6 lbs.**

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, such as Excelsior MM-100 Moisture Mitigation, must be installed prior to proceeding with installation. Install The MM-100 per technical data sheet at a rate of 400 sq. ft. per gallon. When installing over concrete as moisture mitigation, material must be applied in two coats. 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.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as the Excelsior MM-100 or an epoxy coating, ensure that 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. Ensure to follow installation procedures and trowel sizes for non-porous substrates.

GYPSUM BASED SUBSTRATES

Gypsum-based substrates must have a minimum compressive strength of 3500 PSI. Gypsum substrates that do not meet this requirement must have one coat of the Excelsior MM-100 or equivalent installed to improve the tensile/pull-off strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. Any cracked or fractured areas must be removed and repaired with a compatible patch or repair product. Follow instructions for installation over a gypsum substrate. New or existing gypsum substrates may require a sealant or primer. Follow all manufacturer's recommendations regarding preparation for resilient flooring installation.

WOOD SUBSTRATES

Wood substrates must be prepared in accordance with ASTM F1482. Wood subfloors should be of double layer construction with a minimum thickness of 1". Crawl spaces beneath wood subfloors shall be in compliance with local building ventilation codes and have at least 18" of cross-ventilated space between

the ground and the joists. Wood joists should be spaced on not more than 16" centers.Prior to installation, moisture retardant sheeting with a maximum rating of 1.0 perm must be installed beneath the wood subfloor, overlapped at least 8". For standard installations, use Underlayment Grade plywood with a minimum thickness of 1/4" thick and a fully sanded surface. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates. Avoid 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 will cause the flooring installations to release, buckle or become distorted. As such, do not use 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 on a sleeper system (wood subfloor system over concrete) or directly over Sturd-I-Floor panels.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground and cleaned of any 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 or moisture and/or high humidity, an anti-corrosive coating must 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. Any deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Ensure 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 turned off 48 hours prior to installation and remains off 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.

4. SUBLEVELER INSTALLATION

Ensure substrate is 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 that proper trowel type and size is used, as manufacturer is not responsible for any and all adhesion issues related to improper adhesive selection or usage.

Ensure substrate is clean, dry and sound prior to installation. Prior to installation, dry-lay several subleveler to establish the best layout for the installation area and facility. Inspect all sections before installing or during installation to verify that there are no visible defects, damages or excessive shading variations.

Apply adhesive according to instructions for specific product in use. Be sure to follow instructions based on substrate porosity (porous or non-porous). See below chart for reference.

Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate. When installing into adhesive using a wet-set method, avoid walking or working on material until adhesive has cured for light foot traffic. Pay close attention to open times to avoid adhesion issues. This may require installing material in smaller sections.

Adhesive Coverage Rates *(Per Gallon)*

Adhesive	Porous	Non-Porous
AW-510	160 sq. ft.	N/A
MS-700	160 sq. ft.	235 sq. ft.
EW-710	160 sq. ft.	235 sq. ft.

Periodically lift material to ensure proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of tile. Clean excessive adhesive or adhesive residue from the surface of the material using a clean cloth or mop and a solution of warm water and a pH neutral cleaner. Do not use abrasive or solvent based cleaners.

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. Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface.

5. FLOORING INSTALLATION

Roppe Subleveler is a non-porous material and is considered a non-porous substrate. As such, follow adhesive recommendation of flooring material for a non-porous substrate. Ensure that Subleveler is free of dust, dirt and debris prior to installation of flooring material. If necessary, clean the Subelever using a clean cloth or mop and a solution of warm water and a pH neutral cleaner.

WARRANTY

Roppe provides a 1 Year Limited Warranty on all Rubber Accessories. For additional information, see associated warranty documents.

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