INSTALLATION INSTRUCTIONS FOR REATEC ARCHITECTURAL FILM

KOROSEAL
REATEC FILM

STOP! PLEASE READ BEFORE INSTALLING REATEC PRODUCTS

REATEC WARRANTY COVERAGE IS SUBJECT TO THE CONDITION THAT THE REATEC PRODUCTS ARE INSTALLED IN STRICT ACCORDANCE WITH THESE INSTALLATION INSTRUCTIONS.

Inspection of Product:
Please inspect for damage before signing for acceptance of product. If damage is noted, please advise freight carrier immediately. The installing contractor must verify that the correct SKU#, color, and design is present on the job site. Furthermore, the installer must also review the installation instructions.

PRE-INSTALLATION REQUIREMENTS:

Interior Applications
With the exception of the specific REATEC finishes that are noted by the sun symbol ( ) in the REATEC binder, REATEC finishes are intended for interior applications only.

Installation Environment
Prep both the surface of substrate as well as the general work area surrounding the application, mist water as a dust suppression tactic, use plastic dust walls and filtration units and/or otherwise protect the immediate area from dust and particle contamination to ensure a clean and professional installation. Any dust or other contaminants between the substrate and REATEC will cause noticeable lumps, bumps, or bubbles and will be considered an unacceptable application.

Task Lighting
Use proper task lighting as needed to be able to see both substrate and film. You may overlook potential finish contaminants if there is not proper lighting for the task. Also review the Heat Setting section below for additional lighting requirements.

Job Site Humidity
The substrate to receive REATEC must be completely dry. No surface moisture of any kind is tolerated by the adhesive system. In addition, the relative humidity of the work area should be kept as low as possible, as any surface condensate can affect the adhesion of REATEC finishes. Maximum humidity level at the job site must be under 50%.

Ambient & Surface Temperatures
Lowest acceptable temperature is 12°C (54°F) and highest is 38°C (100°F). Warm up or air condition the installation area prior to commencing application. Material should be allowed to acclimate to the environment of the workspace for 24 hours prior to application.

Pre-Installation Storage
Keep REATEC out of direct sunlight prior to installation. Materials should be allowed to acclimate to the environment of the workspace for 24 hours prior to application. Never allow the material to be stored at a temperature above 38°C (100°F).

Avoid Direct Sunlight
If the substrate to receive REATEC is in direct sunlight, the surface may become unacceptably hot. Under these circumstances, the initial tack of the REATEC adhesive becomes extremely aggressive and workability diminishes. Avoid working in direct sunlight as much as possible. Additionally, large temperature swings immediately after installation may cause the material to move unacceptably, potentially causing bubbling and gaps at the seams. Installation on metal substrates in direct sunlight is always risky, as they may be very hot even in winter environments.

Thermoforming & Heat Setting
When applying REATEC around external and internal corners, as well as 3-dimensional surfaces, REATEC may get whitened at the areas of maximum stress due to installation pressure. Use a hair dryer to slightly warm the film

immediately after installation to remove the stress induced whitening. Also, gently warm the entire application area using not more than an 1800 watt hair dryer immediately post installation, while also illuminating the surface with a low-angle light source. Post heating assures 100% surface adhesion and the addition of lighting will illuminate any potential bubbles, contaminates, or other issues.

Unique Air-Through Adhesive System
The REATEC adhesive system contains a system of channels that enable faster and easier installation by facilitating the removal of potentially trapped air. This system is not intended to be a substitute for proper application and squeegee techniques.

Use caution during layout and cutting
Make sure that your working surfaces (cutting table, surrounding floor, etc) is completely clean and dust free to avoid contamination.

Handling pre-cut segments
Stand pre-cut segments on end after rolling and taping the cut end to prevent them from unrolling while you are working. Never allow rolls to rub against each other or let the product drag across the floor and/or allow it to lay on floor directly as it could become scratched or otherwise damaged.

Release liner separation while on the worktable
When you make a material pull from a roll and lay it flat on a worktable, the tension from being wound around the core may cause the liner to buckle or pucker from the film itself. If required, you may release this tension while the film is on the worktable by pulling the liner back past the area of stress and then re-laying it onto the film. Be sure that your work area is clean before attempting this, as it is easy to contaminate the adhesive performing this task.

SURFACE PREPARATION GUIDELINES:

Smooth Substrate
Prep substrate immediately before applying REATEC. The substrate should be hard, smooth, dry, and clean from dirt, dust, and other contaminants that might interfere with the adhesive system.

Dry Substrate
We recommend that the surface to receive REATEC be at or below 8% moisture. In essence, entirely dry.

Sealer, Compound & Primers
A substrate primer should be used in any application where the substrate cannot be made entirely non-porous. State Volatile Organic Compound (VOC) regulations may prohibit the use of some primers in certain situation. Please check with your individual State environmental authorities to determine whether the use of specific primers you are going to use is restricted or prohibited.

Corner Protection
Use protective tape or padding at exposed corners during installation to prevent accidental dings and nicks.

Substrate Selection
The color of the substrate may affect the overall tone of the final REATEC application. Avoid application of REATEC to substrates that are very different in overall tone, such as dark woods on a white substrate. Consider this tone shift during substrate selection.

Adhesive Tape
Do not leave any adhesive tape on the surface of REATEC for an extended period. The tape may delaminate and leave the adhesive behind, causing potential damage to the REATEC surface to remove.

Oily Surfaces
Surfaces that may potentially contain oils or waxy contaminates, such as veneers and finished plywood, must be prepped in such a manner as to entirely remove those oily/waxy contaminates. Only apply REATEC if the surface is completely devoid of oil or other substances on the veneer surface that could affect the overall ability of the adhesive system to form a good bond.

Substrate Joints
Joints and contact points of HPL, melamine, MDF etc, must be finished in a manner so as to leave no trace of the earlier joint. Incomplete joint preparation will cause installation issues or failure. Also be sure that the method or product used in joint preparation is appropriate for the substrate. Failure to use the proper joint compound or filler for applicable substrates will result in the potential for the compound to delaminate under the pressure of the installation itself.

Proper Substrates
Substrates must be smooth, hard, and non-porous. We do not support REATEC application directly over gypsum board. Do not apply REATEC on brass, copper, or lead surfaces. Do not apply REATEC on solid woods or laminated wood surfaces unless they can be sealed with a permanent sealer. Delamination, bubbling, or other adhesive failure may occur after installation if the surface is not a correct material or properly prepped.

Installation on Glass
When applying a REATEC finish to glass, prep the glass by spraying with a mild detergent solution, scrape the surface with a specific, glass cleaning razor blade and rinse again with the detergent. Use a window cleaning squeegee to dry the window entirely before applying film. Applications to glass may have a shorter lifespan due to ultraviolet absorption. Also, the application of REATEC to double-panel, insulated glass units may potentially break the glass if the finish is absorptive and exposed to direct sunlight. Contact your distributor for further information prior to the application of REATEC in these situations.

Installation:
Possible temperature for installation is 54°F (12°C)~ 38°C (100°F), but ideal temperature for installation: 68°F ~77°F (20°C~ 25°C). Lowest acceptable temperature 54°F (12°C). Do not exceed surface temperature for installation 85°F (29°C).

Tools

1. Olfa Knife w/blades
2. Underlay Cutter w/blades*
3. Utility knife w/blades
4. Squeegee (included) w/microfiber squeegee pad*
5. 60" Metal Straight Edge
6. Heat Gun/Hairdryer
7. Tape Measure
8. Sharpie Marker
9. Hand Tool as Per Project
10. Plastic Trash Bags
11. Shop Vac
12. Work light
13. Required Ladder
14. 4' x 8' Melamine Table
15. Sawhorses

*Available in stock from Koroseal

Supplies

16. Blue Painters Tape
17. Paper Towels
18. Denatured Alcohol
19. 3M Adhesive Promotor/Primer 94
20. Filler (Bondo, Wood Filler, etc.) As Per Project
21. Nitrile Gloves
22. Paper Towels
23. 150 Grit Sandpaper / Sanding Sponge
24. Soapy Water (1oz Dish Soap to 32 oz water in spray bottle)

Safety (As Required/Desired)

25. N95 Ventilator Face Mask
26. Eye Protection
27. Fresh Air Circulation
28. Caution Tape

Surface Preparation

29. Make an installation plan. Determine where seams will be, grain/texture direction, material waste etc.
30. In an inconspicuous area, verify cleaning and priming will not damage substrate.
31. Verify installation surface is in acceptable condition.
32. If required, clean entire surface with light spray of soapy water solution. (1oz dish soap to 32 oz water in spray bottle)
33. Survey surface for any defects/obtrusions.
34. Address defects/obtrusions to smooth surface using filler if necessary.
35. Completely lightly sand (150 grit) to lightly etch.
36. Clean surface of dust with soapy water solution and dry with microfiber towels.
37. Using denatured alcohol, wipe down entire surface paying attention to edges.
38. Apply 3M Primer 94 to edges. 1" over top and bottom to enhance wrapping.
39. Let primer dry to touch. (15 minutes)
40. The goal is to apply the film as soon as possible to freshly prepared surface. The longer it takes the more chance to get dust/particulate contamination.

Application

41. Cut material out of box adding 1 inch to the edges to be wrapped.
42. Back roll the cut sized material loosely.
43. Tape the roll to secure.
44. Using Underlay Cutter tool create an approximately 1" cut strip in the backing approximately 6-8" from the edge. Recommended using the narrowest run.
45. Remove the 1" liner strip. Position the roll on the substrate and measure equally to get a square and level application. This is more important on grains and running line patterns.
46. Tack down the strip. Verify positioning. The material can be pulled up again and repositioned if required.
47. Fold back the 8" leading edge and remove the liner. Slowly squeegee the edge from the 1 "cut line UP to the top edge of the material using about a 30-degree angle. Moving edge to edge.
48. With the material still rolled up start the removal of the liner. Slowly unroll the material while simultaneously removing the backing paper. Squeegee as you go working with 8 to 10 inches progression. You can pull up the material if needed to fix trapped air or remove particles that may be trapped behind the product.
49. After the material is applied use your finger to work the edge of the material into a 45-degree attachment to the edge. When arriving at the corners put a 45-degree cut at the corners to relieve the tension and finish the edges. Do the same to the lower edge or trim off the inside edge. Wrapping is best to ensure edges are not susceptible to peeling if impacted during normal use.

Finish

50. Visually inspect surfaces. Any trapped air can be removed using a pin to create a hole and push out the trapped air Optionally with a heat gun or hair dryer heat up the edges and work them into place. The adhesive reacts to heat and the product becomes pliable. Be careful not to overheat as the material as it may become deformed and require removal.
51. Never leave the release liner from REATEC lying on the floor after application. The paper is siliconized and extremely slippery, creating a significant potential slipping hazard.
52. If you need to store left over materials, roll them up tightly, by hand, on a leftover tube core and then tape the rolled-up material firmly to itself. Make sure that the material is snug on the core, because any slack may cause the release liner to buckle or come off. Place the remaining material in a sealed plastic bag to protect it from moisture. The remaining product should be stored below 38°C (100°F), avoiding direct sunlight and high humidity. Use the remaining product within 1 year of purchase.
53. Small repairs can be made if necessary in an inconspicuous location.
54. To remove tougher stains, use a non-abrasive scouring pad with the detergent solution. Scrub firmly and repeat as needed, being careful not to dull the finish of the REATEC. Wipe with a damp cloth and then finish with a fresh, dry cloth.

THESE ARE THE GENERAL PRODUCT APPLICATION STEPS. AN EXPERIENCED INSTALLER'S TECHNIQUES MAY VARY.

Issues with butted seams
A small gap may occur after creating a butt seam (double cut) if the technique is not properly performed. Also, this gap may be highly visible if the film color is very different from the substrate. It is recommended that the substrate color be specified as a similar color to that of the film. Apply at least 2 coats of primer to areas to be seamed. When you perform double cut seams, be very careful not to cut through the film/liner layers and into the substrate as it may cause lumps, irregular seams and/or gaps.

Issues with overlapped seams
When performing an overlapped seam, apply primer to the base film ONLY on the area where overlapping film will cover the base film and allow it to cure prior to performing overlap. Use tape or other masking devices to prevent any primer from being exposed on the base film layer, as it cannot be removed.

Internal/external corners and 3D surfaces
Always apply the primer to the substrates for corners and dimensional surfaces in order to promote proper adhesion. Many films will discolor, change metallic sheen or distort grain if stretched excessively. Always test any film being used on any textured or 3-dimensional surface prior to starting work.

Exterior Applications
On exterior applications, do not apply films to unsealed wood, Silicate Calcium panels, Slate Board, Ceramics or any porous substrates. Applying to these substrates may result in lifting, bubbling, and other film failures. For exterior vertical plane application, water may penetrate where the film edges touch other materials or if moisture behind the substrate can permeate. This can cause the film adhesive to release. Use a waterproof sealant around all edges or choose a substrate that is a water resistant material, like metal, clad aluminum panels, or plastic, etc. When performing on overlapped seams, sand and apply primer to the base film only on the area where overlapping film will cover the base film and allow to cure prior to performing overlap.

SPECIAL INSTALLATION GUIDELINES:

REATEC DRY ERASE Projectable Whiteboard Film
The basic installation guidance is same as regular REATEC but there are a few minor exceptions.

Ambient & Surface Temperatures
For successful REATEC DRY ERASE applications, the work site ambient temperature should be between 20°C - 25°C (68°F - 77°F) and should never be below 12°C (54°F). Do not apply REATEC if the work site temperature is above 38°C (100°F). If the temperature requirements cannot be met, postpone your installation until the proper environmental conditions can be met.

Substrate Surface, Writability, Erasability, and Projectability
For best results, REATEC DRY ERASE should only be applied to surfaces that are perfectly smooth, like glass, metals, plastics, or melamine. Prep the substrate immediately before applying REATEC as allowing the prepped surface to sit "open" for any time will allow for contaminate buildup. The substrate should be dry, smooth and clean from dirt, dust, and other contaminants. The finish quality of the substrate is critical, as the reflection of a projector lamp will highlight any imperfection.

Additional Notes on Gypsum Applications
In the case of a gypsum board application there are significant additional requirements to assure the proper finish of the product. For this reason, it is not recommended as a typical REATEC DRY ERASE substrate. The surface should be finished to a Level 5 finish and receive two coats of a primer containing 100% Acrylic Solids prior to the beginning

of installation, with the surface to be sanded smooth after each coat, NO EXCEPTIONS. The surface areas to receive REATEC DRY ERASE must be masked to prevent the primer from contacting areas where the REATEC DRY ERASE will not be applied.

Seams
Joining two adjacent panels of REATEC DRY ERASE require the use of a butt type seam, executed using a double cut technique. This technique must be properly executed, including leaving release liner on the back most sheet of REATEC DRY ERASE. If the technique is not properly performed, a gap may form after installation. In the unusual case where you need to use overlapped seams, you must sand and apply primer to the area of the surface where the overlap will occur. This step cannot be left out, because the surface of REATEC DRY ERASE is a specially laminated layer that typical adhesives won't adhere to. Also, be aware that the raised surface and unevenness of this area will affect writability, erasability, and projectability. Overlapped seams are always highly visible.

Application on 3-Dimensional Surfaces
REATEC DRY ERASE cannot be thermally formed so application to 3-dimensional surfaces is prohibited.

Production Lot
While REATEC DRY ERASE is manufactured under the strictest of quality controls, the top coating that makes the film erasable may be slightly different on each production run. Please use a single production lot if your installation will require seams.

REATEC WEATHER RESISTANCE / REATEC DOORSKYN

Installation Environment
Any dust or other contaminants between the substrate and REATEC will cause noticeable lumps, bumps, or bubbles and will be considered an unacceptable application.

Task Lighting
Use proper task lighting as needed to be able to see both substrate and film. You may overlook potential finish contaminants if there is not proper lighting for the task.

Static Electricity
When the air is exceedingly dry and static electricity is easily generated, spray water on the floor.

Ambient & Surface Temperature
For successful a REATEC application, the work site temperature should be between 20°C (68°F) and 25°C (77°F) and should never be below 12°C (54°F). Do not apply REATEC if the work site temperature is above 38°C (100°F). Product should be stored immediately upon receipt, between 12°C (54°F) and 38°C (100°F), avoiding direct sunlight and high humidity. Large temperature swings during and after installation may cause the material to move unacceptably, potentially causing bubbling and gaps at the seams.

Low Temperature
Lowest acceptable temperature is 12°C (54°F). If the work site temperature is below 12°C (54°F), postpone your installation and warm up the installation area prior to commencing application.

High Temperature
If the substrate to receive REATEC is in direct sunlight, the surface may become unacceptably hot. Under these circumstances, the initial tack of the REATEC adhesive becomes extremely aggressive and workability diminished. Avoid working in direct sunlight as much as possible. Installation on metal substrates in direct sunlight is always risky, as they may be very hot even in winter environments.

Thermoforming & Heat Setting
When applying REATEC around external and internal corners, as well as 3-dimensional surfaces, REATEC may get whitened at the areas of maximum stress due to installation pressure. Use a hair dryer to slightly warm the film immediately after installation to remove stress induced whitening.

SURFACE PREPARATION GUIDELINES

Substrate Selection
Do not apply REATEC on exterior wood doors, if they are in direct sunlight and are exposed to the rain. It may potentially cause bubbling. Oily surfaces must be prepped in such a manner as to entirely remove those oily/waxy contaminates.

Primers
If the primer causes a change in surface of the substrate (which could result of in poor adhesion), do not apply REATEC. Please test a small area before applying primer on entirely surface.

Routine Care and Maintenance of REATEC Finishes:
Clean REATEC with a commercially available neutral detergent, such as Dawn Dishwashing Liquid, and water. Apply cleaning solution with a spray bottle then wipe the solution with a clean cloth. Never use harsh detergents, chemicals, abrasive pads or solvents (such as paint thinner, etc) for cleaning, as they may cause disfiguration of the product.