

## 020 Primer/Bonding Agent for Eclipse-GF ESD Rubber

### 1 Product

020 primer is a 1 component Polyurethane resin surface bond enhancer for use with Eclipse-GF only for porous and nonporous substrates.

- **Substrate preparation:** The substrate can be dry or moist, but must be firm, load-bearing, frost-proof, and free of dust and separating agents. 020 primer must be applied twice to fresh cement substrates with excess residual moisture.
- **Application:** Shake well before use. Pour the primer into a clean vessel, and apply within 60 minutes. It is applied with a short pile roller. The working temperature may not fall below +50°F. Low temperatures and/or high air humidity may extend the setting time.
- **Drying time:** Approx. 1 hr. as priming layer
- **Working time:** Approx. 60 min. at +68°F
- **Accessibility:** After about 40 - 50 min. at +68°F
- **Cleaning:** Clean the tools with water
- **Storage:** Approx. 12 months in original sealed packaging. Do not store under +40°F, frost sensitive.
- **Disposal:** Introduce only completely empty packaging to recycling processes. Cured residue may be disposed of as industrial waste similar to domestic waste.
- **Underfloor heating suitability:** Yes
- **EMICODE:** EC1R+ (very low emission levels PLUS)

### 2 Technical Data

**2.1 Unit:** 1 component surface bond enhancer

**2.2 Packaging:** 2.5 gallon plastic container

**2.3 Shelf life:** Minimum 1 year

**2.4 Storage:** Room temperature, away from direct sunlight and dry area

**2.5 Freeze/Thaw stable:** Stable per ASTM D7149 at 0°F (- 18°C).

**2.6 Cure time:** 1-2 hours

**2.7 Moisture in concrete tolerance:** Per the flooring requirements

**2.8 VOC content:** VOC content is 0 grams/liter; product is in compliance with the SCAQMD Rule 1168 Standard for Architectural Sealants, which has a VOC limit of 250

**2.9 LEED Contribution:** 020 primer is in compliance with the VOC limits of SCAQMD Rule 1168 required by LEED and can contribute to LEED Credit 4.1 Low Emitting Materials, Adhesives & Sealants

**2.10 Coverage:** Approximately 875 s/f per 2.5 gallon unit

**2.11 Warranty:** Eclipse Rubber warranty.

**2.12 Ideal Working Temperature:** 60°F / 15°C to 75°F / 24°C, 40 % to 65 % relative humidity

**2.13 Foot Traffic:** Prevent any traffic on the seams until weld has cured for approximately 8 hours.

**2.14 Castor Chairs:** When dry & cured

**2.15 Heavy Foot Traffic:** When dry & cured

**2.16 Heavy Rolling Loads:** When dry & cured

**2.17 Wet Cleaning:** Wet mopping – after 8 hours, machine scrub after 24 hours and if required to buff floors – after 72 hours.

## 3 Installation

### 3.1 Site Conditions

When installing Eclipse-GF it is mandatory to use 020 primer, which is a surface bond enhancer on the surface of the properly prepared substrate. It is the responsibility of the installing party to determine the suitability of the subfloor and substrate being covered. The prepared substrate must be smooth and ridge free, using an approved underlayment following the manufacturer's written usage instructions (refer to the Subfloor Preparation section of the Eclipse-GF installation guide.) Note: To minimize run off or gapping, specify a floor flatness tolerance, to be agreed upon by the owner, general contractor and flooring contractor, prior to the installation. The area to receive flooring, must be fully enclosed, weather tight and climate controlled at the normal service ambient temperature and humidity (except walk in freezers or similar) or 68°F ± 5°F and 50% ± 10% ambient relative humidity (RH) for 48 hours before, during and 72 hours after the installation. The flooring and all accessories must be acclimated within this area or nearby with the same climate condition for at least 48 hours prior to installation. Areas of the flooring subjected to direct sunlight, for example through doors or windows, must have them covered using blinds, curtains, cardboard or similar for 24 hours prior, throughout and for a period of 72 hours after the installation. Eclipse flooring must not be installed when dew point occurs (a surface temperature at which condensation occurs.) The substrate surface must be at least 5°F above dew point when using Eclipse rubber products. Example: If the ambient conditions are 70°F and 65% RH, the dew point is 57°F and you must not proceed with the installation, unless the surface temperature is at a minimum of 62°F. Dew point calculation charts are available on the web.

### Mat Bond Testing

Bond tests are required for 020 primer applied directly over the substrate after proper preparation using all of the products proposed for the project. This will help determine the compatibility of the preparation method and products. Apply 020 primer to the substrate as described within this installation guide. The bonding of the rubber flooring is not required as that is not being evaluated. After it is fully cured (approximately 1-2 hours), use a hand scraper and try to remove the 020 primer from the substrate. If it is able to be removed in ~1/2 inch size pieces or greater, then a problem may exist, contact the Staticworx technical department immediately. If the 020

primer is very difficult to remove then it can be deemed acceptable and you may proceed with the installation using the same preparation protocol.

### **CONCRETE - NEW CONSTRUCTION WITH SLAB INTERNAL RELATIVE HUMIDITY OF 85%RH OR BELOW**

All concrete subfloors on or below grade must have a permanent effective vapor retarder with a minimum thickness of 0.010 inches and a permeance of 0.1 y, as described in ASTM E1745 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs, is required under all on- or below-grade concrete floors. The concrete subfloor should not be subject to shrinking, curling, cracking or moving in any way prior to the application of any Eclipse flooring. Staticworx accepts no liability for failure or complaint due to slab movement of any kind. Do not install over expansion joints; use a purpose-built expansion joint covering system. Clean out all dormant saw cuts and cracks to remove any laitance, dirt, debris, sealers and any visible moisture. To achieve this, use a suitable dustless concrete saw with a diamond blade or similar. If you are not sure they are dormant, contact the Staticworx Technical Department. The concrete surface must be clean and smooth enough to prevent any surface irregularities from telegraphing through the flooring. All sealers or film forming curing compounds on the surface of the concrete must be removed by mechanical means. Use a Diamabrush<sup>TM</sup> Concrete Prep Plus Tool 100-grit or 25-grit on a rotary sanding machine. For large areas a light shot-blasting or brush-blasting may be the preferred method to remove it. Perform a Water Droplet Test in a sufficient number of places throughout the project to be certain of its removal. Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with latex modified patching or underlayment compound for filling or smoothing, or both. Patching or underlayment compound must be moisture-, mildew-, and alkali-resistant, and, for commercial installations, must provide a minimum of 3000 psi compressive strength when tested in accordance with ASTM C109/C109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50mm Cube Specimens or ASTM C472 Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete, whichever is appropriate. Warranties should be obtained by the manufacturers of the products used.

### **CONCRETE - NEW CONSTRUCTION WITH SLAB INTERNAL RELATIVE HUMIDITY**

86%RH AND ABOVE Same as above except for the patching & leveling compound materials. The products used must have no moisture vapor emission limitations and be capable of being used on slabs that are tested to 100%RH, and have a minimum of 3,000 psi compressive strength. Warranties should be obtained by the manufacturers of the products used.

### **CONCRETE – REFURBISHMENT**

The concrete surface must be free of old adhesive residues, curing compounds, sealers or any other contaminate that could be considered a bond breaker. It must be clean, absorptive and smooth enough to prevent any surface irregularities from telegraphing through the flooring.

Shot-blasting or brush-blasting is the recommended method to prepare the concrete surface; however, Scrape-Away cutter blades on a rotary sanding machine may be required first to remove heavy accumulations of old adhesives. The use of a Diamabrush<sup>TM</sup> Concrete Prep Plus Tool to prepare the concrete surface is acceptable; however, it is a slower and more time-consuming method. Perform the Water Droplet Test in a sufficient number of places throughout the project to be certain of its proper surface contaminant removal. Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with latex modified patching or underlayment compound for filling or smoothing, or both. Patching or underlayment compound must be moisture-, mildew-, and alkali-resistant, and, for commercial installations, must provide a minimum of 3,000 psi compressive strength when tested in accordance with ASTM C109/C109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50mm Cube Specimens or ASTM C472 Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete, whichever is appropriate. Warranties should be obtained by the manufacturers of the products used. Note: Patching and leveling compounds are not vapor barriers. When selecting products for use in refurbishment projects, it is a requirement that they do not have moisture limitations. The only exception to the requirement is if proper moisture testing has been performed and documented following the protocol of “ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Slabs Using in situ Probes” and the moisture test results are  $\leq 85\%RH$ . In addition, if on or below grade then it must also have a confirmed working vapor retarder that meets the current requirements of ASTM E1745 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs. The vapor retarder must be placed directly underneath the concrete, above the granular fill.

## **WATER DROPLET TEST**

To perform the water droplet test, simply place a dime sized droplet of water on clean concrete (without any patch or leveler.) The water must begin to absorb into the concrete within five minutes. If the water droplet does not absorb into the concrete substrate, then more mechanical preparation is required to remove whatever sealer, hardener, curing compound or other contaminate that is present on the substrate. For small areas, a Diamabrush<sup>TM</sup> Concrete Prep Plus Tool, 100-grit, or 25-grit on a rotary sanding machine is recommended when used with a shop vacuum equipped with a HEPA filter and dust shroud. For large areas, shot blasting may be the preferred mechanical preparation method. Also recommended is a Dust Deputy ([www.oneidaair.com](http://www.oneidaair.com)) or similar and a suitable dust mask. Performing mat bond tests (refer to the Bond Test section of this guide) will also give a good indication of the suitability of the substrate.

## **WOOD SUBFLOORS**

All wood subfloors must be a total minimum thickness of 1-1/4 inch and overlaid with overlapping joints using APA (American Plywood Association) underlayment grade plywood, installed as per ASTM F1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring. Wooden substrates must not be in direct contact with concrete subfloors, even if built on sleepers. All suspended wood floors must have adequate

under floor ventilation and a permanently effective vapor retarder or membrane placed directly on the ground beneath the air space. Do not install over oriented strand board (OSB), particleboard, Masonite, lauan, fire retardant treated plywood, or any similar unstable substrates. The plywood must be clean and free of any bond breaking contaminants, this may be achieved by sanding if required or replacing the plywood with new APA plywood. Any gaps at the seams must be filled and smoothed with suitable and flexible joint filler. Any ridges must be sanded smooth.

### **GALVANIZED/STAINLESS STEEL AND ALUMINUM SUBFLOORS**

Abrade the existing galvanized/stainless steel or aluminum by using mechanical systems – i.e., disk sander with 40-grit sandpaper. Clean the galvanized/stainless steel, or aluminum by sweeping and then wiping with 70% Isopropyl alcohol. Perform a mat bond test for the 020 bonding agent as described in this installation guide.

### **REGULAR STEEL SUBFLOORS**

All rust must be removed by sand blasting or other mechanical methods. To prevent the steel from rusting again, a primer such as SherwinWilliams Re-coatable Epoxy Primer (Recoatable Epoxy Primer; Part G-B67R5, Part HB67V5 Hardener) or similar must be applied to the steel subfloor. Contact the Sherwin-Williams Company at 216-566-2902 for complete SDS and product installation instructions. Use only in well ventilated areas. Perform a mat bond test for the 020 bonding agent as described in this installation guide.

### **OVER EXISTING FLOOR COVERINGS**

Eclipse-GF can be installed over existing smooth finished, non-cushioned backed and securely bonded floor coverings (e.g. VCT, natural rubber, linoleum, PVC.) The existing flooring must not have any voids that could telegraph through the flooring. Eclipse-GF can also be installed over properly prepared existing terrazzo, ceramic and quarry tile floors. Note: The responsibility for determining if the old resilient flooring is well-bonded to the subfloor and is not textured or embossed enough to show through the new installation rests with the owner, general contractor and flooring contractor. Installations over existing resilient flooring may be more susceptible to indentations. To fill voids and/or surface irregularities, use a patching compound that is suitable for bonding to existing floor coverings. Sand the surface to a smooth finish as needed. A primer may be required so it is important to check with the patch manufacturer for specific mixing and installation instructions. Any product warranties or performance guarantees are the responsibility of the selected manufacturer.

## 3.2 Installation Guidelines

### APPLICATION

Use a micro fiber paint roller and paint tray (DO NOT POUR DIRECTLY ON THE SUBSTRATE.) Apply a very thin, even layer of 020 primer. Avoid thick applications, puddling, dry spots and roller lines. The applied 020 primer should have an opaque or clear, shiny appearance. If you see an orange peel appearance, immediately go over the surface again while it is still wet using a dry micro fiber paint roller to remove the excess. Note: Thick applications will need to be mechanically removed if left to dry. For areas that are being flashed coved, apply a thin and even coat of 020 primer to the wall beneath the cap strip using a small paint roller. Note: If installing wall base and/or sanitary base it is not necessary to apply the 020 primer to the wall.

### SECOND COAT

For all on/below grade concrete subfloors without a confirmed effective vapor retarder meeting the requirements of ASTM E1745 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs apply a second thin coat of 020 primer. Sanding or grinding is not required between applications of the first and second coat unless there is more than 24 hours between them.

### SANDING

When fully dried to a tack-free state (approximately 90 minutes), lightly grind the surface smooth using a 100-grit Diamabrush™ Concrete Prep Plus Tool on a rotary sanding machine or 30-grit sanding discs on a rotary machine (note these will clog often.) When sanding smooth, avoid creating deep scratches into the product. Over sanding will require additional applications of the 020 primer. Another option is to back trowel to remove surface imperfections. Finish by removing all loose debris with a suitable vacuum cleaner.

### REPAIRING

If the surface of the 020 primer is compromised after grinding and/or sanding, or possibly damaged, the area will require repairing. Only after the 020 primer is known to be completely dry, sand the affected area smooth and reapply the required amount of coats. If patching is required, remove the 020 primer completely in the affected area, apply patch, sand smooth and remove any residual patching compound off the surface of the surrounding 020 primer. Clean the repaired area and apply the required amount of coats of 020 primer, blended in at the edges to avoid roller lines.

**Clean up:** Clean tools and any spilled 020 primer using mineral spirits with a clean cloth immediately. If the primer has cured, this may not be possible.

**Disposal:** Dispose in accordance with local, state and national legislation.