



PRODUCTS FOR OUR ENVIRONMENT

TECHNICAL DATA SHEET

ERS-303-U

For Professional Use Only

Aluminum Stone	035-0010	Classic Bronze	035-0015
Anodized Aluminum	035-0011	Limestone	035-0016
Beige	035-0012	Natural Stone	035-0017
Black	035-0013	Off-White	035-0018
Bronze	035-0014	Tan	035-0019
White			035-0020

PRODUCT DESCRIPTION:

ERS-303-U is a moisture curing, single-component, non-sag polyurethane sealant. It is designed to maintain an effective bond and seal between materials of similar and dissimilar surfaces, porosities and coefficients of expansion.

RECOMMENDED USES:

ERS-303-U is intended for use in expansion and control joints in precast panels, tilt-up walls, metal curtain walls, copings, window and door perimeters, panel bedding and glazing details.

INSTALLATION:

Surface Preparation: Joint surfaces and backer rod must be dry and free of all contaminants such as oil, grease, wax, dust, corrosion, tar, asphalt, loose aggregate, frost, form-release agents and decorative and protective coatings. Precast panels using form release agents other than polyethylene film must be sandblasted or mechanically abraded and blown or brushed dust free. Glass, metal and other nonporous surfaces must be free of any coatings and wiped clean with solvent.

Priming: Never a substitute for proper surface preparation, priming is not required on glass or anodized aluminum and usually not necessary on most other common building materials. However, varieties of brick, natural stone, plastics, paints, coatings and other treatments of surfaces often present difficult substrates to which to adhere. Due to the number and unpredictable nature of these substrates, a field or laboratory test is recommended to determine the adhesion of ERS-303-U with or without primer. When priming is indicated, ERS-Primer #100 should be used on porous or nonporous substrates. Check applicable VOC regulations or consult Technical Services if there are questions regarding primer use. ERS-303-U should be applied within eight hours after priming; otherwise, it will be necessary to re-prime.

Because architectural stones such as marble and granite vary considerably in porosity, some bleeding of the sealant into the substrate is a possibility. A field or laboratory test to confirm this possibility is recommended.

Joint Backing: Backer rod controls the depth of the sealant and allows it to be applied under pressure. Use a size that will compress 25%. Denver Foam open-cell polyurethane or reticulated (soft) polyethylene rod is recommended. Closed-cell polyethylene may be used but care must be taken not to puncture the rod which can cause out-gassing or bubbling/blistering in the sealant.

In joints too shallow for backer rod, use a polyethylene bond-breaker tape to prevent three-sided adhesion.

Application: Joints should be masked to ensure a neat appearance. Sealant should be applied in a continuous operation using sufficient pressure to fill the joint and make complete contact to the joint sides. Tool the sealant slightly concave using solvent or dry-tooling techniques. Do not tool with soap or detergent and water solutions.

Tool Time (initial skin): 3-6 hours at 77°F (25°C); 50% relative humidity. Higher temperatures and/or humidity will shorten this time.

Cleaning: Use mineral spirits to remove excess sealant before it cures and to clean equipment. Refer to manufacturers MSDS.

Maintenance: If the sealant is damaged and the bond is intact, cut out the damaged area and re-caulk. No primer is required. If the bond has been affected, remove the sealant, clean and prepare the joint in accordance with the instructions under "INSTALLATION".

PACKAGING:

ERS-303-U is available in 10 fl. (300 ml) tubes; 12 tubes per case.

STORAGE LIFE:

One-part urethanes are extremely moisture and heat sensitive. ERS-303-U has a warranted shelf life of twelve months from date of shipment from the factory when stored in original unopened cartridges or sausages at conditions not exceeding 80°F (27°C), 50% R.H. Consistently higher temperatures and/or humidity will shorten this shelf life. No shelf life is warranted on bulk packages of ERS-303-U.

PRECAUTIONS:

ERS-303-U should not be used:

- As a cap, heel or toe bead in certain glazing installations with high performance glass or plastic.
- In joints less than 1/4" (6 mm) in depth.
- In joints where contact may be made with polysulfide sealants.
- In areas exposed to harsh chemicals.
- On certain architectural paints and finishes without laboratory or field testing.
- In horizontal joints subject to vehicular traffic unless protected by a wearing surface.
- Although ERS-303-U is considered a paintable sealant, due to variability in paint products and their raw materials, installation conditions, installation techniques, as well as primers, it is required that the contractor who applies paint, pretest paint on sealant to determine suitability. Contractor is responsible for test as well as results. Oil based paints can exhibit a slow/non-curing condition. Field-test is required and user must determine suitability. Paintable after 7 days.
- Lighter colors may exhibit discoloration after extensive UV exposure.
- Light colors can yellow slightly if exposed to direct gas fired heating elements prior to formation of initial skin.

PHYSICAL PROPERTIES:

Property	Typical Value	Test Method
100% Modulus (psi)	65	ASTM D 412-75
Adhesion-in-Peel (pli)	20	ASTM C 920
Bond Durability-Class 25	Passes	ASTM C 920
Hardness, Shore A (15-50)	35	ASTM C 920
Service Temperature Range	-20°F to +180°F (-29°C to 82°C)	ASTM C 920
Stain and Color Change	Passes	ASTM C 920
Tack Free Time (hrs.)	6 – 12 hours	ASTM C 679
Tensile Strength (psi)	175	ASTM D 412-75
Ultimate Elongation (%)	550	ASTM D 412-75
Weep and Sag (max 3/16")	Passes	ASTM C 920
Weight loss after heat aging (max 10%)	Passes	ASTM C 920
VOC (g/L)	<100	ASTM D 3960

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