



EUCOLASTIC 1SL

SINGLE-COMPONENT, SELF-LEVELING POLYURETHANE HYBRID SEALANT EUCLID CHEMICAL

DESCRIPTION

EUCOLASTIC 1SL is a single-component, low-modulus, moisture-cure, self-leveling, polyurethane joint sealant. EUCOLASTIC 1SL is formulated to be extremely durable in dynamic joints. It provides superior wear resistance to rubber tires and pedestrians in high traffic areas.

PRIMARY APPLICATIONS

- Concrete control & expansion joints
- Sidewalks
- Truck terminals
- Plazas
- Swimming pool decks
- Traffic loop sealant
- Interior and exterior applications

FEATURES/BENEFITS

- Skins rapidly and is tack-free in less than 5 hours @ 75°F (24°C)
- Remains adhesively and cohesively bonded during temperature cyclic movement
- Service temperature range: -40°F to 185°F (-40°C to 85°C)
- Extraordinary movement capability of +100% / -50%
- Ease of application; dispense and walk away, up to a 6% slope
- Jet Fuel Resistant *Refer to jet fuel resistance bulletin

TECHNICAL INFORMATION

Typical Engineering Data

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

PROPERTY	RESULTS
Rheology ASTM C639	Grade P (Self-Leveling), will hold up to 6% slope
Hardness, Shore A ASTM C661	43-47
Movement Capability ASTM C719	+100% / -50%
Skin Time	1.5-2 hr.
Tack Free Time ASTM C679	7-8 hr.
Tensile Strength ASTM D412	250 psi (1.7 MPa)
Elongation ASTM D412	600%
Tear Strength ASTM D412	35 Pli (61.3 N/cm)
Adhesion to Concrete ASTM C794	Dry: 31 Pli (54.3 N/cm) Submersed: 28 Pli (49.0 N/cm) Green: > 15 Pli (>26.3 N/cm) Saturated (SSD): > 15 Pli (>26.3 N/cm)
Stain & Color Change ASTM C510	No stain/No color change
Effects of Accelerated Aging ASTM C793	No Cracking or Chalking

Appearance: EUCOLASTIC 1SL is a single-component sealant available in the colors Gray and Limestone. Gray is MTO in 5 gallon pails.

PACKAGING/YIELD

EUCOLASTIC 1SL is available in 5 gallon pails and 30 oz. (887 ml) cartridges (12 per case). One gallon yields 231 in³ (3785 cm³). One cartridge yields 54 in³ (884 cm³), and will cover 72 linear feet (22 m) in a 1/4" x 1/4" (6 mm x 6 mm) joint.

SHELF LIFE

1 year in original, unpunctured cartridge

SPECIFICATIONS/COMPLIANCES

ASTM C920, Type S, Grade P, Class 50, Use T, M, A, O, and I (Class 2)
CAN/CGSB 19.13-M87, MC-1-25-B-N

DIRECTIONS FOR USE

Joint Dimensions: Joint width should be 4 times the expected joint movement, but not less than 1/4" (6 mm). Width to depth ratios should be equal for joints that are 1/4" (6 mm) to 1/2" (13 mm) in width. If joint width is 1/2" (13 mm) to 1" (25 mm), the depth of EUCOLASTIC 1SL should be 1/2 the width, with 1/2" (13 mm) being the maximum allowable depth of EUCOLASTIC 1SL. Use backer rod or bond breaker tape to limit the depth of application and to prevent three-sided adhesion. **Applications of EUCOLASTIC 1SL that are deeper than what is recommended can cause bubbling or incomplete curing of the material.**

Surface Preparation: EUCOLASTIC 1SL can be installed in new concrete 24 hours after forms are stripped. The concrete can be damp during application, but do not apply sealant where there is standing water in or nearby the joints. Excess standing water will cause bubbling of the sealant. The joints must be clean and sound. All curing & sealing compounds, oil, dirt, debris, paint, form release agents and any other foreign material must be removed. The final step in cleaning should be the complete removal of all residue by solvent wiping the joint.

Priming: EUCOLASTIC 1SL typically bonds to common construction materials without a primer. However, due to the variance in surface textures of some non-porous materials (metal, glass, certain stones, etc.), a field adhesion test is recommended on these materials to verify adhesion or the need for a primer. The field adhesion test for joint sealants is described in ASTM C1193. EUCOLASTIC PRIMER is required to prime the joint facing when the sealant will be in service under water after application and curing. See Eucolastic Primer technical data sheet for use instructions.

Mixing: EUCOLASTIC 1SL is a single-component sealant and requires no pre-blending. It should be used directly from the cartridge.

Placement: Ensure that all the necessary preparation work is completed. Place backer rod or bond breaker tape into the joints and make sure they are secured in place. Using standard caulking guns, dispense the sealant directly from the cartridge into the joint. Once the joint is full, leave it alone and allow it to self level to a nice and smooth finish. EUCOLASTIC 1SL will hold a slope up to 6%.

Curing: EUCOLASTIC 1SL requires no special curing. The moisture in the air and substrate will cure the sealant. A skin forms on the surface in about 1.5 to 2 hours at 72°F (22°C) and 50% relative humidity. It will be tack-free in under 5 hours. EUCOLASTIC 1SL cures at rate of about 1/16" (1.6 mm) per day. The cure time will increase or decrease as temperatures and humidity levels fluctuate.

CLEAN-UP

Tools, equipment and general clean-up can be done with EUCO SOLVENT or xylene before the material dries. Removal of dried EUCOLASTIC 1SL can only be done by mechanical means.

PRECAUTIONS/LIMITATIONS

- Use only at temperatures above 40°F (4°C).
- The surface temperature of the substrate must be at least 40°F (4°C) and rising, but below 150°F (66°C), at the time of application.
- For best results, store sealant at room temperature prior to application.
- Contact surfaces must be clean.
- Do not use underneath a polyurethane deck coating unless the sealant has fully cured.
- In all cases, consult the Safety Data Sheet before use.

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