

JOINT SEALANTS

Master Format #: 07 92 13



EUCLID CHEMICAL

EUCOLASTIC 1NS

**SINGLE-COMPONENT, NON-SAG
POLYURETHANE HYBRID SEALANT**

PACKAGING

10.1 oz (300 mL) cartridge, 30 per case
Code: 2745 95

APPROXIMATE YIELD

EUCOLASTIC 1NS is available in cases of 10.1 oz. (300 ml) cartridges (30 cartridges per case). One cartridge yields 18 in³ (294 cm³), and will cover 24 linear feet (7.3 m) in a 1/4" x 1/4" (6 mm x 6 mm) joint.

CLEAN UP

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

SHELF LIFE

18 months in original, unopened container

SPECIFICATIONS AND COMPLIANCES

- ASTM C920, Type S, Grade NS, Class 35, Use NT, M, A, and O
- ASTM C1248
- U.S. Federal Specification TT-S-00230C Class A, Type II
- CAN/CGSB 19.13-M87

DESCRIPTION

EUCOLASTIC 1NS is a single-component, non-sag, low-modulus, moisture-cured, polyurethane hybrid joint sealant. EUCOLASTIC 1NS is formulated with a unique silane-terminated polyurethane polymer, that provides unequalled performance against stand-alone polyurethane sealants. EUCOLASTIC 1NS is an extremely durable sealant in dynamic joints, offering persistent adhesion once fully cured.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Skins rapidly and is tack-free in 3 to 4 hours @ 75 °F (24 °C)
- Service temperature range: -40 °F to 185 °F (-40 °C to 85 °C)
- Remains adhesively and cohesively bonded during temperature cyclic movement
- Extraordinary movement capability of +/- 35%
- Can be painted

PRIMARY APPLICATIONS

- Concrete control & expansion joints
- Precast concrete panels
- EIFS
- Window & door perimeters
- Masonry
- Interior and exterior applications
- Above and below grade

APPEARANCE

Eucolastic 1NS is a single-component sealant available in the following colors: Black, Bronze, Gray, Limestone, Stone, and White.

TECHNICAL INFORMATION

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

Test Method	Test Property	Values
ASTM C639	Rheology	Grade NS (Non-Sag) < 0.1875" (4.8 mm)
ASTM C1183	Extrusion Rate	57.9 ml/min
ASTM C661	Hardness Shore A	25
ASTM C719	Movement Capability	+/- 35%
-	Skin Time	1 hour
ASTM C679	Tack-Free Time	5 to 6 hours
ASTM C794	Adhesion-in-Peel	Concrete 18-22 Pli (31.5-38.5 N/cm) No adhesion loss
ASTM C510	Stain & Color Change	No stain/No color change
ASTM C793	Effects of Accelerated Aging	No Cracking or chalking

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 1NS should be 1/2 the width, with 1/2" (13 mm) being the maximum allowable depth of EUCOLASTIC 1NS. Use backer rod or bond breaker tape to limit the depth of application and to prevent three-sided adhesion. **Applications of EUCOLASTIC 1NS that are deeper than what is recommended can cause bubbling or incomplete curing of the material.**

Surface Preparation: New concrete must be minimum of 28 days old. The joint must be clean and sound. All oil, dirt, debris, paint 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. Substrates must be dry at time of application. Wet or damp joints will cause bubbling of the sealant.

Priming: EUCOLASTIC 1NS 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 1NS 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, tool the sealant using a rounded spatula to create a concave surface. The concave shape will help the sealant stretch properly as the joint moves. Tooling will also put a little pressure on the sealant to aid with initial adhesion.

Curing: EUCOLASTIC 1NS requires no special curing. The moisture in the air and substrate will cure the sealant. A skin forms on the surface in about 1 hour at 75 °F (24 °C) and 50% relative humidity. It will be tack-free in 3-4 hours. EUCOLASTIC 1NS 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.

PRECAUTIONS/LIMITATIONS

- 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.
- Do not use Eucolastic (1NS or 1SL) in submerged applications in swimming pools.
- For best results, store sealant at room temperature prior to application.
- Contact surfaces must be clean and dry.
- 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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