EUCOLASTIC 1NS

Single-Component, Non-Sag Polyurethane Hybrid Sealant

EUCLID CHEMICAL

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 unequaled performance against stand-alone polyurethane sealants. EUCOLASTIC 1NS is an extremely durable sealant in dynamic joints, offering persistent adhesion once fully cured.

Primary Applications

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

Features/Benefits

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

Technical Information

Typical Engineering Data

The following results were developed under laboratory conditions @ 75° F (24° C):

Property	Results
Rheology ASTM C639	Non-sag (NS)
Extrusion Rate ASTM C1183	93.1 ml/min.
Hardness, Shore A ASTM C661	25
Movement Capability ASTM C719	+/- 35%
Skin Time	1 hr.
Tack Free Time ASTM C679	3-4 hr.
Adhesion-in-Peel ASTM C794	Concrete 18-22 Pli (31.5-38.5 N/cm) No adhesion loss
Stain & Color Change ASTM C510	No stain/No visible color change
Effects of Accelerated Aging ASTM C793	Pass

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

Packaging/Yield

EUCOLASTIC 1NS is available in cases of 10.1 oz. (300 ml) cartridges (30 cartridges per case). One cartridge yields 18 in^3 (294 cm^3), and will cover 24 linear feet (7.3 m) in a 1/4" x 1/4" (6 mm x 6 mm) joint.

Shelf Life

18 months in original, unpunctured cartridge

Specifications/Compliances

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

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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 PRIMER is required to prime the joint facing when the product will be used on non-porous surfaces (metal, granite, etc.) or when the sealant will be underwater. 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.

Clean-Up

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

Precautions/Limitations

- Use only at temperatures above 40°F (4°C).
- 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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