



COSTAR EXPANSEAL 100

Single-Component, Polyurethane Hybrid Sealant

PRODUCT DESCRIPTION

Costar expansel 100 is a single-component, non-sag, low-modulus, moisture-cure, polyurethane hybrid joint sealant. Costar expansel 100 is formulated with a unique silane-terminated polyurethane polymer, that provides unequaled performance against stand-alone polyurethane sealants. It is an extremely durable sealant in dynamic joints, offering persistent adhesion once fully cured.

BENEFITS

- Skins rapidly and is tack-free in 2 to 3 hours @ 28°C.
- Remains adhesively and cohesively bonded during temperature cyclic movement.
- Extraordinary movement capability of +/- 35%.
- Can be painted.

APPLICATION AREAS

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

APPLICATION

Joint Dimensions: Joint width should be 4 times the expected joint movement, but not less than 6 mm. Width to depth ratios should be equal for joints that are 6 mm to 13 mm in width. If joint width is 13 mm to 25 mm, the depth of COSTAR EXPANSEAL 100 should be 1/2 the width, with 13 mm being the maximum allowable depth of COSTAR EXPANSEAL 100. Use backer rod or bond breaker tape to limit the depth of application and to prevent three-sided adhesion.

Applications of COSTAR EXPANSEAL 100 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 residues by solvent wiping of the joint. Substrates must be dry at time of application. Wet or damp joints will cause bubbling of the sealant. Priming: COSTAR PRIMER 20 is required to prime the joint facing when the product will be used on nonporous surfaces (metal, granite, etc.) or when the sealant will be underwater. COSTAR EXPANSEAL 100 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: COSTAR EXPANSEAL 100 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 24°C and 50% relative humidity. It will be tack-free in 3-4 hours. COSTAR EXPANSEAL 100 cures at rate of about 1.6 mm per day. The cure time will increase or decrease as temperatures and humidity levels fluctuate

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TECHNICAL PROPERTIES

PROPERTY	RESULT
Rheology (ASTM C 639)	Non-sag (NS)
Extrusion Rate (ASTM C 1183)	93.1 ml/min
Hardness, Shore A (ASTM C 661)	25
Movement Capability (ASTM C 719)	+/- 35%
Skin Time	1 hour
Tack Free Time (ASTM C 679)	3 to 4 hours
Adhesion-in-Peel (ASTM C 794)	Concrete 31.5-38.5 N/cm No adhesion loss
Stain & Color Change (ASTM C 510)	No stain/No visible color change
Effects of Accelerated Aging (ASTM C 793)	Pass

GENERAL INFORMATION

Packaging	This product is available in 600ml cartridge
Coverage	One cartridge will cover 14.4m in a 6mm * 6mm joint
Shelf life	1 year in original, unpunctured cartridge



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SHELF LIFE

Protect from freezing and contamination. Shelf life in unopened, original containers is 12 months, when stored at 68°F (20°C)

HEALTH & SAFETY

- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Wear suitable protective clothing, gloves and eye/face protection.
- If swallowed, seek medical advice immediately and show this container or label.
- Keep the coating materials above 10C.
- Do not apply when surface temperature is below 10°C or over 35°C
- Do not apply in environments of high humidity/moisture, or if pending rain is a possibility.
- Once mixed, it be must use within its pot life as specified in earlier section

STANDARD

Conforms to the requirement of ASTM C 920 Type S, Grade NS, Class 35, ASTM C 1248

LIMITATIONS

- Use only at temperatures above 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

ADDITIONAL INFORMATION

Costarchem manufactures a complete range of construction chemical products which include:

- Concrete admixtures
- Waterproofing system
- Flooring system
- Cementitious and epoxy precision grouts
- Damp-proofing products
- Sealants and adhesives
- Repair and refurbishment systems

For more information on any of our products, please contact Costarchem global or regional office.

LEGAL NOTE

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