

Description

The **ChemSeal 1®** is a one-component, medium-modulus polyurethane sealant that cures on exposure to atmospheric humidity. It possesses excellent adhesion to all typical construction materials with excellent weathering resistance.

Key Features

- Possesses permanent elasticity.
- Excellent weatherability.
- Paintable.
- No surface tackiness after full cure.
- Excellent adhesion without priming.
- Highly resistant to sea water, diluted acids and alkalis.
- No shrinkage.
- UV resistant/ fast curing.
- Low VOC.
- Easy to gun, Easy to tool.

Uses

- Expansion joints between many different construction materials.
- Indoor and outdoor applications for pedestrian and traffic areas.
- Sealing and bonding of ventilation ducts, gutters and spouts etc.
- For expansion joints between pre-cast concrete panels.
- Glazing joints of windows, door frames and curtain walls.

Application Instructions

- **Surface Preparation:** Surface preparation is the most important step before applying any type of adhesive and/or sealant to get best results and to avoid adhesion failure.
- The surface to receive **ChemSeal 1®** must be dry, free from dust, coatings, bituminous mastics, concrete curing agents, mold release agents, oils, greases and loose particles. For expansion joints avoid weak building materials such as cement mortar, aerated concrete or rigid foam.
- Clean the joint surface by wire brush and sanding with emery paper if needed in order to remove all traces of release agents, or curing compounds.
- Remove dust by compressed air or paint brush.
- Wipe out oil and grease by solvent soaked cloth such as Xylene, Toluene or Acetone.
- **Application:** Proper joint profile is 2:1 width to depth ratio with minimum joint depth of 8 mm and maximum width of 50 mm. For 10 mm wide joints proper width to depth ratio is 1:1.
- Insert **i Flex BR®** compressible polyethylene rod as backup material to control depth of sealant in the joint and to provide support for tooling of the sealant.
- Apply tape to both edges of the joint.
- Tool sealant to ensure full contact with joint walls and remove air entrapment. For best results in tooling the sealant, use a spatula and liquid soap diluted 1 : 10 with water (for smoothing). Avoid contact with alcohol and other solvents during cure period (7 days).

Technical Properties

Basis	Polyurethane	
Density	1.40 ± 0.5 gm/cm ³	
Tack free time	120 min. (25 °C)	
Curing Rate	7 days	
Temperature Resistance	-40 °C to +90 °C	
Application Temperature	+5 °C to +40 °C	
Hardness Shore A	40 ±5	(ASTM C661)
Elastic Recovery	Yes	
Elongation at break	Min. 100%	(ISO 8339)
Elongation at break	> 355 %	(ASTM D412)
Tensile Strength	1.5-2.0 N/mm ²	(ASTM D412)
Color	White / Black / Grey	

Standards

- Conforms to BS 6920 for the metallic water soluble impurities and is suitable for use in drinking water system.
- Conforms to the requirements of VOC content specifications in LEED credit EQc4.1 "Low-emitting products" of SCAQMD rule 1168.
- Meets the French VOC requirements for class A+.

Packaging

- 600ml sausage.

Shelf Life

Shelf life is up to 12 months when stored as per recommendations.

Warehouse Conditions

ChemSeal 1[®] store in normal temperature and closed shaded dry area in undamaged original packing.

Quality, Health And Safety

All products manufactured by **iChem[®]**, or imported from **iChem[®]** affiliate companies worldwide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems.

Technical Support

For any technical support, please contact **iChem[®]** technical office or representatives.

