



105 HY Polyurea

2 Component Elastic Hand Applied Hybrid Polyurea.

PACK SIZE:
10Kgs & 5Kgs

TDS Technical Data Sheet



Product Overview

105 HY Polyurea is a two-component liquid product ready to use, based on moisture curing special polyurethane resins. It provides a high-performance waterproof membrane designed for long-term protection and waterproofing of concrete, cement-based mortars, bricks, tiles, etc.

Features and Benefits

- Easy to apply
- Two components
- Highly flexible
- Permanently elastomeric
- Tough and hardwearing
- Requires no reinforcing
- Suitable for internal and external applications

Recommended Uses

- Concrete
- Cement render
- Blockwork and brickwork
- Fibrous cement sheeting
- Water-resistant plasterboard
- Plywood
- Particleboard

Application Instructions

Surface Preparation : Surfaces must be firm, dry, sound, and smooth. All grease, oil, wax, curing compound, dust, plaster droppings, loose material, paint, and any other contaminants must be removed. Building boards must be fixed in accordance with the manufacturer's directions. Allow concrete to cure for 28 days and cement render for 7 days prior to the application of 105 HY Polyurea. Do not apply over damp or moist concrete slabs unless primed.

Priming : Generally, surfaces do not require priming. In areas where the substrate is damp or water is likely to rise up below the membrane, use AT 107 prior to the application of 105 HY Polyurea. Highly porous substrates should be primed with AT 107, a water-insensitive epoxy that forms a waterproof barrier..

Crack Treatment : Clean and remove any loose particles in the crack. Prime the area carefully before patching the crack with neutral cure silicone sealant, extending 5mm either side of the crack along its entire length. Apply two coats of 105 HY Polyurea over the crack to achieve a minimum thickness of 1.2 mm dry film.

For more significant cracks, apply a 300mm wide band of mixed 105 HY Polyurea along the entire length of the crack. Place a 200mm wide band of polyester reinforcement mat into the wet membrane, remove creases or air pockets, and immediately apply a second coat to completely fill the mat.

Structural and Construction Joints : Clean and prime the joint before filling it with a bead of neutral cure silicone, extending 5mm each side of the joint. Apply a 300mm wide band of mixed 105 HY Polyurea along the entire length of the joint and use reinforcing mat as a slip membrane over the joint.

Corners & Coving Areas : After priming, apply a generous bead (10mm) of neutral cured silicone sealant in coving areas and corners. Smooth over the silicone to extend 5mm up the wall and 5mm over the floor. Apply a first coat of 105 HY Polyurea and allow it to dry. Apply a second coat ensuring the final dry film thickness is around 1.2-1.5mm. For heavy foot traffic areas, a reinforcing mat is required between coats.

Vertical Surfaces : Apply two coats of 105 HY Polyurea in opposite directions on vertical surfaces after priming. Ensure the membrane goes underneath any existing cover flashing or install appropriate flashing. Allow the first coat to dry before applying the second coat. The top of the parapet should be waterproofed with 105 HY Polyurea or covered with suitable metal capping, render, or protective coating.

Horizontal Surfaces : The application of 105 HY Polyurea must comply with AS 3740-2004 waterproofing of internal wet areas in residential buildings." Apply with a brush or roller to achieve a dry film thickness of 1.0mm for optimum performance. Apply at a rate of 0.60 litres/m² per coat, requiring two coats. Allow a minimum of 24 hours between coats.

Note: Protection boards must be used to protect the membrane before backfilling or concreting.

Safety Precautions

It is advisable to use good occupational health and safety practices to avoid personal contact. For more detailed information refer to the product MSDS.

- Product should only be applied under conditions of good ventilation.
- Protective mask and safety glasses should be worn for spray applications.
- Avoid contact with skin, eyes, and avoid inhaling vapors.
- Wear protective gloves and glasses during application.
- In case of ingestion, do not induce vomiting; give a glass of water and seek medical attention.
- In case of skin contact, remove contaminated clothing and wash thoroughly. In case of eye contact, rinse immediately with plenty of water and seek medical advice.

Important Indications

- CLI-105 HY Polyurea Membrane can be affected by a superficial color change over long periods exposed to UV rays. For a permanent aesthetic finish, use an aliphatic polyurethane top coat such as Tough Coat.
- Do not install CLI-105 HY Polyurea Membrane on damp, wet, contaminated, or friable substrates. Excessive water under the membrane will create bubbling.
- Do not apply the product in extreme temperatures below 5°C and above 50°C.

Technical Data

Mixing Ratio	Base: Hardener	100:23.5 pbw or as specified on the container
Elongation at break, 14 days	ASTM D 412	Min. 450 %
Tensile strength, 14 days	ASTM D 412	Min. 4 Mpa
Recovery @ 200 %	ASTM D 412	95%
Hardness (Shore A Scale)	ASTM D 2240	Min. 60
Temperature Resistance		From -30°C to +90°C
MVT-Permeability-7d	ASTM D1653	15 g/day/m ²
Pull Off Adhesion Mpa	ASTM D 4541	Min 5.0 Mpa
Solid Content		88 % ± 2%
Crack Bridging Ability	ASTM C 1305	3-4 mm
Puncture Resistance	ASTM E154	Min 90%
+Ve Hydrostatic pressure	7 bar	Passes
Chemical Properties	Good resistance against acidic and alkali	
Coverage	1.2 kg/ Sq.Mtr@1mm thickness	

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10Kgs & 5Kgs



Data Reliability

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Regional Compliance

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

Legal Disclaimer

The information and recommendations regarding the application and end-use of Carbolink products are provided in good faith based on our current knowledge and experience. Due to variations in materials, substrates, and actual site conditions, no warranty of merchantability or fitness for a specific purpose can be inferred. The user must determine the product's suitability for the intended application. Carbolink reserves the right to change the properties of its products. All proprietary rights of third parties must be observed. Orders are subject to our current terms of sale and delivery. Always refer to the most recent local Product Data Sheet, available upon request.