

# TECHNICAL DATA SHEET

## AQUA ZERO™ PurCoat Pro 300EX

Hot Spray Applied Expandible Pure Polyurea Coating



### DESCRIPTION

**Aqua Zero™ PurCoat Pro 300EX** is a unique, 2 part, solvent free, UV resistant, hot applied sprayable pure polyurea coating, designed for various kinds of waterproofing and coating applications in new construction and refurbishment projects. It has fast curing, VOC free, odourless formula with excellent flexibility and crack bridging properties and perfect choice for seamless applications. It has unique formula which can reach 4-5 times its applied thickness. It is a special developed product for seamless waterproofing, thermal insulation, protection and sealing. It provides a smooth surface by filling the height differences on rough (void, protrusion) surfaces. Ideal for surfaces such as concrete, wood, asphalt, fabric and sheet metal. No primer is required. It also has an excellent resistance to severe weather conditions and strong chemicals and can be used in UV exposed roofs with **Aqua Zero™ Paint 300** Aliphatic topcoat.



### TECHNICAL DATA

	METHOD	DATA
Chemical Structure		A: MDI Prepolymer B: Amine Resin
VOC Content (%)	ASTM D1259	0
Solid Content (%)	ASTM D2697	100%
Gel Time (sec)		8-15 sec
Tack Free Time (sec)		25-45 sec
Recoat Time (hr)		0-12 hr
Density (gr/cm3)	ASTM D792	1.06
Tensile Strength (Psi)	ASTM D638	>290
Modulus (MPa)	ASTM D638	>10
Elongation at Break (%)	ASTM D638	>180%
Hardness (Shore A)	ASTM D2240	45
Tear Strength (N/mm)	ASTM D624	>50

### PRODUCT INFORMATION

Consumption (pound/ft2) – (4 mm thickness)	0.23
Shelf Life	6 Months
Packaging (pound/set)	935 lbs (112 Gal.)
Colour	Various RAL Colours

### KEY FEATURES

- ✓ 2 Component, UV and chemical resistant pure polyurea
- ✓ 100% Solid content, VOC Free, odorless formula
- ✓ Fast setting and service time, fast curing, seamless
- ✓ Excellent flexibility and crack bridging properties
- ✓ Excellent resistance to weather conditions, chemicals and abrasion
- ✓ Reach 4-5 times its own volume. Provides a smooth surface by filling the height differences

### APPLICATIONS

- ✓ Pitched roofs, terraces, balconies and ledges
- ✓ Retaining walls, foundations and shear concrete
- ✓ Uneven surfaces and any curved areas
- ✓ Coating on ship decks and maritime installations
- ✓ Ideal for surfaces such as concrete, wood, asphalt, fabric and sheet metal

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## SURFACE PREPARATION

Surface preparation must be done properly to achieve maximum efficiency of the waterproofing coating system. Surfaces must be clean, weak parts should be removed and surface defects such as voids must be fully exposed. Concrete and other cementitious substrates must have minimum compressive strength of 25 MPa and a minimum pull off strength of 1.5 N/mm<sup>2</sup>. Any laitance present on the surface must be removed mechanically. Shot blasting is the preferred method. Release oil and other contaminants which may impair adhesion must be removed prior to the application of the primer. In new constructions before applying on fresh concrete, it should be waited for at least 28 days for the concrete to dry. Iron and steel substrates should be sand blasted prior to the application of the primer.

## PRIMING

Application surfaces has to be primed in order to achieve an even surface and good adhesion. Lightly spreading out with quartz sand 0.3 mm – 0.7 mm is recommended in order to get higher adhesion values.

**Aqua Zero™ Prime 300** moisture tolerant polyurethane primer can be applied with a consumption of 0.06 – 0.1 pound/ft<sup>2</sup> on porous or non-porous surfaces

## APPLICATION

**Aqua Zero™ PurCoat Pro 300EX** hybrid polyurea coating must be applied within 12-24 hours after applying the primer. MDI Prepolymer and Amine Resin must be applied with a 2 component high pressure and heat spray machine. The machine should spray the A and B components in 1:1 volume ratio.

Before starting the application Component B (Amine Resin) must be mixed in barrel for at least 30 minutes until a homogenous colour is obtained. This mixing process needs to be continued during application. Temperature of the A and B components should be in the range of 77-86°F before application. Components should not be diluted in any case.

Polyurea coating should be applied with a high machine pressure between 140-160 bar. Minimum thickness of 2 mm should be applied for 2 layers.

If there will be direct UV exposure for the cured product, discoloration of the membrane can be observed in a certain period of time. This colour change will not affect the final performance of the product. If colour stability is desired, **Aqua Zero™ Paint 300** needs to be applied within 0-12 hours after the application of the main coat.

## SHELF LIFE & STORAGE CONDITIONS

**Aqua Zero™ PurCoat Pro 300EX** is sensitive to moisture. Keep polyurea components in closed warehouse between 68-86°F. Shelf life of the unopened original packaging is 9 months from manufacturing date.

## SAFETY

**Aqua Zero™ PurCoat Pro 300EX** contains isocyanate. Avoid breathing vapours and contact with skin and eyes. Take precautions during application and use appropriate PPE including working clothes, gloves, mask, eye & face protection. Adequate ventilation of the working area is recommended. Refer to SDS sheet prior to use.

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