

TECHNICAL DATA SHEET

AQUA ZERO™ PurCoat Pro 100H

Hot Spray Applied Hybrid Polyurea Waterproofing Membrane



DESCRIPTION

Aqua Zero™ PurCoat Pro 100H is a 2 part, hot applied, sprayable hybrid polyurea waterproofing membrane, designed for flat and slope roofing applications in new construction and refurbishment projects. It has fast curing, VOC free, odourless formula with excellent flexibility and crack bridging properties. It also has excellent resistance to 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)		5-10 sec
Tack Free Time (sec)		15-30 sec
Recoat Time (hr)		0-12 hr
Density (gr/cm3)	ASTM D792	0.99-1.03
Tensile Strength (MPa)	ASTM D638	>1880
Modulus (MPa)	ASTM D638	>5
Elongation at Break (%)	ASTM D638	>300%
Hardness (Shore A)	ASTM D2240	90-95
Tear Strength (N/mm)	ASTM D624	>25

PRODUCT INFORMATION

Consumption (pound/ft2) – (1mm thickness)	0.23
Shelf Life	9 Months
Packaging (pound/set)	935 lbs (112 Gal.)
Colour	Various RAL Colours

KEY FEATURES

- ✓ 2 Component, aromatic, UV Resistant Hybrid 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 and chemicals

APPLICATIONS

- ✓ General waterproofing applications in roofing (roofs, terraces, balconies, etc.)
- ✓ Ceramic, screeds, concrete and other floor coverings.
- ✓ Ceramic, screeds, concrete and other floor coverings.
- ✓ Foundations and curtain concretes.
- ✓ Refurbishment projects

NUCLEUS INCORPORATION



P: +1 (202) 748 6050
E: contact@nucleusincorp.com
W: www.nucleusincorp.com

13901 Willard Rd. Chantilly, VA 20151

TECHNICAL DATA SHEET



AQUA ZERO™ PurCoat Pro 100H

Hot Spray Applied Hybrid Polyurea Waterproofing Membrane

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 a minimum pull off strength of 1.5 N/mm². 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. All kinds of cracks, gaps and segregations on the surface should be repaired with suitable epoxy or cement based repair mortars. 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/ft² on porous or non-porous surfaces

APPLICATION

Aqua Zero™ PurCoat Pro 100H 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 100H 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 100H 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.

DISCLAIMER

The technical data contained herein is based on our present knowledge and experience and we cannot be held liable for any errors, inaccuracies, omissions or editorial failings that result from technological changes or research between the date of issue of this document and the date the product is acquired. Before using the product, the user should carry out necessary tests in order to ensure that the product is suitable for the intended application. Moreover, all users should contact the seller or the manufacturer of the product for additional technical information concerning its use, if they think that the information in their possession needs to be clarified in any way, whether for normal use or a specific application of our product. Our guarantee applies within the context of the statutory regulations and provisions in force, current professional standards and in accordance with the stipulations set out in our general sales conditions. The information detailed in the present technical data sheet is given by way of indication and is not exhaustive. The same applies to any information provided verbally by telephone to any prospective or existing customer.