

SpecPolyurea 1000

Pure polyurea – soft/flexible

A two component, pure polyurea, 100% solids, no VOC one coat hot spray applied elastomeric coating system capable of producing a seamless, soft, and flexible membrane typically applied onto concrete or steel substrates where more elasticity and flexibility are required.

Intended Uses:

SpecPolyurea 1000 is applied using plural component spray equipment with 1:1 direct impingement at a temperature of 70°C.

SpecPolyurea 1000 cures within seconds, allowing rapid return to service, and is relatively moisture and temperature insensitive allowing extended working seasons. SpecPolyurea 1000 is not a hybrid polyurea, so there is no compromise on performance.

SpecPolyurea 1000 is used for applications requiring higher elongation, increased flexibility, and better resistance against moving substrates.

- Low Load Bearing structures
- Gutters and valleys
- Roof lining / waterproofing systems

SpecPolyurea 1000 with the correct priming system can be applied to steel, concrete, wood, asphalt, and polystyrene. As with all aromatic polyurea coatings, discolouration upon exterior exposure is common. These effects can be masked by using black polyurea or by overcoating the polyurea with an aliphatic coating such as SpecSpartic Polyaspartic Coating or an aliphatic polyurethane like PU DTM Flexi HB or Glazetek within the set out overcoating window.

Properties:

- 100% solids.
- High performance pure polyurea technology.
- Fast set, walk on in seconds.
- Excellent physical properties – thermally stable to 150°C.

Physical Properties:

Shore A Hardness	70
Shore D Hardness	25
Tensile Strength (MPa)	15
Angle Tear (N/mm)	42
Elongation (%)	620
Gel Time (s)	13
Tack Free Time	20 s
Temperature Resistance Dry (°C)	65°C

Technical Data:

Colour	White, grey, or black
Type	Pure polyurea
Density @ 25°C	1.11 Kg/ Litre – Comp. A (ISO) 1.05 Kg/ Litre – Comp. B (POL)
Volume Solids	100%
Viscosity @ 25°C	775 mPa.s – Comp. A (ISO) 350 mPa.s – Comp. B (POL)
Typical Film Thickness	2mm to 5mm per coat
Theoretical Coverage	1 m ² / Litre @ 1mm DFT
Method of Application	Plural component heated spray
Processing Temperature	Min 70°C
Mixing Ratio	1 : 1
Pack Size	40 & 400 Litre
Cure Walk On @ 1.5mm	10 minutes @ 20°C
Cure Light Duty @ 1.5mm	4 hours @ 20°C
Cure 80% @ 1.5mm	1 day @ 20°C
Cure 100% @ 1.5mm	4 days @ 20°C
Recoat Time Minimum	4 minutes @ 20°C
Recoat Time Maximum	12 hours without re-activation
Over 12 hours Recoat	Abrade, de-dust & re-prime with 2K PU SF Primer

Surface Preparation:

As with quick cure coatings, the rapid setting of polyurea systems can sometimes limit the wetting and penetration of the substrate surfaces. This in turn can affect the mechanical bonding. For this reason, end users are advised to test the adhesion of sprayed elastomer films on target substrates to assess the coating bond, where necessary, the use of surface primers may be required.

SpecPolyurea spray systems should only be applied to clean, dry, and sound surfaces. Remove grease and loose rust, or any other foreign material to ensure adequate adhesion.

Concrete

The concrete shall be completely cured, minimum 28 days. Laitance, release agents and salts need to be removed by high pressure water jetting or sandblasting. Other substrates cleaning guidelines can be consulted via SSPC-SP13, NACE 6.

2K PU SF Primer or Epoxy SF Primer Fast Cure is needed to achieve adequate adhesion. Recoat windows MUST BE STRICTLY ADHERED to.

Metal/Steel

The metal surface needs to be prepared by means of abrasive blast cleaning. The surface profile will ensure adequate mechanical adhesion. Solvent cleaning is needed to remove oil and grease.

If a primer is going to be applied, it should be done within 4 – 8 hrs after sandblasting to prevent any flash rusting.

Waterproofing: Liquid Waterproofing Coatings

Whilst we endeavour to ensure that all advice we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product

Application:

Prior to commencing the use of the product, ensure that the two components are stored at a temperature no lower than 20°C, a temperature of around 25°C is preferable and can be achieved by storage in a heated room or electrical jacket heaters. **The B Component should be power mixed prior to use.**

Suitable dispensing equipment is required in order to apply this product. Equipment must be capable of delivering product at between 120 – 170 bar, accurately metering the two components in a fixed 1:1 ratio by volume. The machine should have an output adequate to match the highest projected output from the gun to be used, typically a minimum of around 3.5 Litres/minute. It must also be capable of controlling component temperatures independently along the length of the hoses up to the gun coupling block to around 70°C.

The spray gun must use high pressure impingement to achieve satisfactory mixing of the components immediately on triggering, consult with Specialized Coating Systems to discuss suitable equipment.

To achieve an even finish during application the gun should be held at right angles to the substrate at 30 – 70 cm and multiple passes at 90° to one another are favoured to produce each coat. Exact distance can depend on pressures and gun output. Review the appropriate methods statement for detailed application instructions.

Limitations:

- Material (in closed containers) should be maintained in protected storage in accordance with information given in the STORAGE section of this data sheet.
- Technical and application data herein is for the purpose of establishing a general guideline of the coating application procedures.
- Test performance results were obtained in a controlled laboratory environment and Specialized Coating Systems makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary, due care should be exercised in the selection and verification of the performance and use of the coating.

Storage:

- Shelf Life: 12 months at 25°C from date of manufacture. Subject to inspection thereafter.
- Store in dry conditions out of direct sunlight, away from sources of heat or ignition.

Precautions:

For complete safety and handling information please refer to the appropriate Safety Data Sheets prior to using this product.