



PRODUCT DESCRIPTION

PUREPOLY 5000 is a premium two component rapid cure plural spray-applied, 100% volume solids pure polyurea elastomer coating with outstanding physical properties designed specifically for abrasion, corrosion resistance and waterproofing applications

FEATURES

- Excellent adhesion to suitably prepared substrates
- Rapid curing- resistant to rain & foot traffic in minutes.
- 100% volume solids/ Zero VOC / no solvents
- High elongation & permanent flexibility
- Bridges cracks & joints
- High tensile & tear strength
- High impact, puncture & abrasion resistivity
- High corrosion & weather resistivity
- Resistant to most aggressive chemicals, solvents, acids & caustics
- Seamless and monolithic
- Relatively insensitive to ambient conditions
- Does not support microbial growth
- Conforms to AS/NZS 4858:2004 and AS/NZS4020
- Design Life 20-100 years
- Thermal stabile
- Chlorine and saltwater resistant
- Little or no odour
- Fast return to service – significant savings

TYPICAL USES

- Industrial & manufacturing facilities, storage, load & high traffic areas
- Sewerage and wastewater (steel & concrete)
- Marine (steel piles, shoring & pier cap coatings)
- Commercial waterproofing flat roofs including asbestos
- Trafficable areas (car parks, lay downs, plant & equipment floor areas)
- Wear & tear parts, vibrating stoker, belt conveyors
- Buried Pipeline (Concrete & Steel)
- Biotope, fishponds, playgrounds
- Pools indoor/outdoor, reservoirs, sedimentation tanks, oxygen tanks, filtration systems
- Cool rooms
- Tunnels, dam walls, bridge decks, walkways
- Blast Mitigation
- Rainwater storage & clean water tanks
- Laboratories
- Chemical bunding areas

CHEMICAL PROPERTIES

	COMPONENT A	COMPONENT B
Chemical	ISOCYANATE (Hardener)	POLYETHERAMINE (Resin)
Physical Form	Liquid	Liquid
Volatile Organic Compounds (VOC's)	0%	0%
Volume Solids	100%	100%
Flash Point	≥110°C	≥185°C
Viscosity @ 28° C	700-850 cps	700-850 cps

PHYSICAL PROPERTIES

PROPERTY	RESULT
Elongation	≥400%
Tensile Strength	17.0 MPa
Tear Strength	60-65 N/mm
Impact Resistance	73 N/mm
Shore Hardness	85 (Shore A) 40 (Shore D)
Abrasion Resistance	95mg (ASTM C501-84)
Fire Resistance	Self- Extinguishing
Recommended DFT/WFT thicknesses	≥1.5mm – Waterproofing. ≥3mm – Tank Lining & corrosive environments. ≥5mm – High abrasion and impact conditions.
Theoretical Coverage	1 M ² @ 1mm = 1kg
Water Vapour Transmission	0.18g/(h.m ²) 4.30g/(m ² .24h)
Water Absorption	≤1.00% (AS3558.1)

CURE TIMES / RETURN TO SERVICE

- Gel time – 8 seconds
- Tack Free – 40 seconds
- Light Foot Traffic- 5 minutes
- Rain Resistant – 10 minutes
- 75% Cure – 2 hours
- Full Cure – 7 Days

All above based on 25°C ambient conditions.

SUBSTRATE PREPARATION

The intended service conditions, age of asset and substrate condition will determine the level of surface preparation required. Standard International Industry surface preparation levels are described below;

Steel

Abrasive Blast to achieve a surface profile of 2-3 mils (50-75 um) and free of oil, grease, dust, dirt, mill scale, rust, oxides and any other foreign matter in accordance with Sa 2.5/NACE2/SSPC-SP10 or greater. Prevent flash rust and prime with approved primer.

Concrete

Concrete moisture content must be below 75% RH in accordance with ASTM F2170. Surface to be free of all contaminants, and loose materials, curing compounds, laitance and any other foreign matter. Concrete must be dry and fully cured with a cohesive strength greater than 1.5 MPa. Fillet internal corners using Crest Cormix Polyurea Joint sealants/ or Crest Cormix PU Filler materials. Radius external corners to form a smooth rounded edge. Repair any blow outs and remedial bug hole using approved methods. Prime with approved primer to cover pinholes.

FOR PROJECT SPECIFIC ITP (Inspection and Test Plans), please consult one of our team at Crest Cormix.

APPLICATION

Accredited Contractors Only. PUREPOLY 5000 is a specialist material and must only be applied by skilled and approved applicators certified by Crest Cormix.

PUREPOLY 5000 is relatively insensitive to moisture and temperature however, to avoid problems with adhesion and pinholes, applicators should observe the following limits;

- Relative Humidity $\leq 85\%$
- Substrate Temperature $\geq 10^{\circ}\text{C}$
- Substrate must be $\geq 3^{\circ}\text{C}$ higher than dew point.

EQUIPMENT & CRITERIA

PUREPOLY 5000 can only be applied using specialist equipment approved by Crest Cormix. Electric and Hydraulic Plural component reactors, such as the following are accepted and approved machines;

- Graco Reactor Series 2 E-XP2
- Graco Reactor E-10HP
- Graco Reactor Series 1 & 2 H-XP2 & H-XP3

POWER

Supply and distribution must be sized according to the requirement of the machine and ancillary equipment used. Insufficient power and wide power fluctuations can cause reactors to shut down and display error codes, or worse damage electronics. Please consider other power tools being used such as lighting, fans and vacuums in addition to peak draw when items like compressors switch on/off. Operation manuals detail system requirements however, if in doubt contact your equipment supplier.





EQUIPMENT SETTINGS

It is critical to ensure that the following parameters are adhered to during the prepare and dispensing of PUREPOLY 5000 Polyurea Coating;

- Static Pressure – 2,500 Psi
- Working Pressure - ≥ 2000 Psi
- A side temp - 65°C
- B side temp - 65°C
- Hose Temp - 65°C (N/A for E-10HP)
- Mix ratio - 1:1 (by volume)
- Spray Gun – AP Fusion or similar

During application procedures the equipment should be monitored regularly to ensure operation, particularly pressure balance being even and consistent. Important your equipment is fully serviced and maintained to avoid issues.

RE-COAT WINDOW

PUREPOLY 5000 has no minimum recoat window, the desired film thickness can be achieved in one session by making several passes of the spray gun. For lapping onto edges or topping up thinner film build, this must be done **within 2 hours**. Exceeding this window will require abrading the membrane with a 60- grit disc followed by vacuum to remove debris. If left for more than 24 hours abrade as above, then apply CREST 1k PU Primer and allow to tack-off before spraying.



HEALTH & SAFETY

Avoid eye and skin contact. Wear rubber gloves and safety goggles. Hands should be cleaned with cleaner followed by soap and water. Refer to Crest Cormix Pty Ltd Safety Data Sheet for this product.

TECHNICAL SERVICE

Crest Cormix technical personnel provide full technical back up and support to accredited contractors.

QUALITY ASSURANCE

ISO 9001:2015



MANUFACTURED IN AUSTRALIA BY

Crest Cormix Pty Ltd,
1/111 Lewis Road, Knoxfield, VICTORIA 3180 Australia.
Ph: +61 3 9887 0422
Email: enquiries@crestcormix.com.au

Important Notice

CREST CORMIX products should be used in accordance with the information contained here. Each user should read and consider this information carefully in the context of how the products will be handled and used in the workplace including in conjunction with other products. While the information contained here is CREST CORMIX's best knowledge at the date of publication, CREST CORMIX PTY LTD makes no representation about the accuracy of the information and information provided is not intended as recommendations which infringe on other patents. If you need clarification or more information, you should contact CREST CORMIX PTY LTD directly. CREST CORMIX products are sold without express or implied warranties, other than as provided by statute, and subject to our standard terms and conditions (provided to customers and available on request). Subject to our standard terms and conditions, and any statutory provisions, CREST CORMIX PTY LTD accepts no responsibility (including in negligence) for loss or damage of any nature resulting from the use of CREST CORMIX products or reliance upon the information contained here. These products are designed solely for use by fully qualified contractors utilizing specialized equipment and industry expertise.