Datasheet

Irathane Polyurea 2000

DESCRIPTION

Irathane Polyurea 2000 is a rapid curing, spray applied elastomer system producing linings and membranes with excellent physical and weathering properties. The system is ideal for coating or lining large structures, as well as offering rapid turnaround times

Conforms to the requirements of BS6920 and is UK WRAS listed, reference 0403502

BENEFITS

- **Rapid Cure**
  - Sets in less than 5 seconds
  - Walk on time <15mins (above 10ºC)
- **Compatible with Aqualine, Irathane Linings, Primers and adhesives**
  - Allows even the most complex structure and substrate combination to be protected, with the additional benefit of being able to be repaired
- **Elastomeric**
  - Tolerates crack movement
- **UV Resistant**
  - Added U.V. stabilizer gives exceptional light stability
- **Easy dispensing and mixing**
  - 1:1 Volume Mix Ratio
- **Moisture Tolerant**
  - Can be sprayed directly onto damp substrates with or without geotextile, to produce seamfree unbounded membranes
- **Repairable**
  - Quickly and easily repairable
- **Suitable for contact with potable water**
  - Conforms to the requirements of BS6920 and is UK WRAS listed, reference 0403502

TYPICAL APPLICATIONS

- *Sealing of concrete tanks& sumps*
- *Corrosion and abrasion resistant linings for metal tanks and structures*
- *Pond and landfill cover liners*
- *Secondary containment areas*
- *Reservoir roofs*

PRODUCT DATA

Product Data		*Polyurea 2000*	
Application		Spray	Cast
Tensile Strength MPa	ISO 37	25	30
Elongation at Break %	ISO 37	400	400
Hardness Shore A	ISO 7619	95º	98º
Resilience	ISO 4662	45	40
Tear Strength, kN/m	ISO 34-1, die C	67	67
Crack Movement Potential	mm	10	10
Colours			
Puncture Resistance, kN/m	ASTM 4833	109.4	-
Index Puncture Resistance	FTMS 101C	232.8	-
Water Vapour Transmission, g/m²/24 hours	ISO 6179	42	42
Direct shear, elastomer onto soil	Degrees	38	-
Direct Shear, elastomer/geo textile on soil	Degrees	37	-
Linear Shrinkage @2.5mm DFT	600 x 600mm sheet, %	1.1	-
Abrasion Resistance, mm³	ISO 4649	250	200
Mixing Ratio by Volume	-	1:1	1:1
Pack Size	Per Component	200lt	200Lt

Should Irathane Polyurea 2000 become worn or damaged it can easily be repaired (consult Speccoats Technical Service)

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SURFACE PREPARATION

Refer to surface preparation data sheet for substrate being coated and data sheet for primer system being used or contact Speccoats technical service department

APPLICATION METHOD

Plural Component Hot Airless

The dispensing equipment must be a hydraulically operated, high pressure metering unit, capable of operating between 120 to 150 bar with an output of up to 3.5 litres/minute. Mix ratio is 1:1. The unit must accurately control temperature between 65 & 70ºC via primary heat exchangers and a heated hose assembly. The spray gun must be a mechanical purge high pressure impingement type, capable of mixing the two components and dispensing them in an even fan shaped pattern

To achieve a full even coating thickness, the spray should be held at right angles to the substrate at a distance of 30-50cm. apply each spray pass at a speed to fully wet out the coating in a series of parallel passes with a 50% overlap between each pass until the required coating thickness is obtained

Clean Up - Equipment must be cleaned immediately after use with EC19 Thinners

a) Allowance for wastage should be made e.g. for surface irregularities
b) In certain circumstances and conditions these timings may be altered – consult Speccoats Technical Services

NOTE: If the humidity rises over 85% or temperatures drops within 1ºC of the dew point, when the atmospheric conditions return to recommended levels, wipe to remove excess moisture and surface contaminants before overcoating

STORAGE, SHELF LIFE & SAFETY

When stored in the original, unopened containers, at temperatures below 25ºC in dry conditions. Polyurea 2000 is guaranteed for a period of 6 months from the date of shipment. Irathane products may contain flammable solvents and/or materials which could be volatile and in some cases irritation to the skin and respiratory system. Use only in adequate ventilation, keep away from sources of ignition. Suitable respiratory equipment and protective clothing must be worn. Read detailed Health & Safety Data Sheet on each product before use.

APPLICATION INFORMATION

Product Data		***Part A***	***Part B***
Viscosity	mPa.s @20ºC	900	450
Standard Kit Size (lts)	Litres	200	200
Mixing Ratio		2.86 (volume)	1 (Volume)
		2.15 (weight)	1 (weight)
Specific Gravity	@ 20ºC	1.12	1.01
Material Temperature			
	15ºC - min	20ºC	30ºC
Potlife	50 Minutes	35 Minutes	20 Minutes
Substrate Temperature			
	10ºC	20ºC	30ºC
Recoat Time Minimum	5 minutes	4 minutes	3 minutes
Recoat Time Maximum without reactivation (b)	60 Minutes	50 Minutes	30 Minutes
Abrade, dedust + UU55	>60 Minutes	>50 Minutes	>30 Minutes
Cure: Walk on Time	15 Minutes	10 Minutes	5 Minutes
Cure: Light Duty Return to service	6 Hours	4 Hours	2 Hours
Cure: 80% Physical properties	1 Day	1 Day	1 Day
Cure 100% Physical Properties	6 Days	4 Days	2 Days
Coverage Rates			
Theoretical Coverage Rate	@ 1mm DFT	1.02kg/m²	0.96Lt/m²

DISCLAIMER

The above figure represent mean values obtained in our own laboratory. They do not as such constitute a specification, since ITW Irathane International cannot predict the results which may be obtained from different working conditions on users equipment, it is in the best interest of all customers that they ascertain by relevant tests the suitability of a given system for any application