



TECHNICAL DATA SHEET - IRATHANE 155 HS

Revised: 05/2018

PRODUCT DESCRIPTION

A two component spray applied elastomeric polyurethane designed to provide an abrasion resistant coating which also exhibits excellent resistance to seawater, most oils, greases and detergents and to moderate concentrations of many acids and alkalis.

RECOMMENDED APPLICATIONS

- Mineral Processing Plant
- Heat exchangers and Water boxes
- Pipework and valves
- Sectional Water tanks

FEATURES

- Long pot life
- Easy application
- Good for complex items
- Excellent abrasion resistance

PACKAGE SIZE

10L

PRODUCT DATA

PHYSICAL PROPERTIES	
COLOUR	Grey / Orange (high build)
MIX RATIO BY VOLUME	1 : 1
MIX RATIO BY WEIGHT	1.08 : 1
% SOLIDS BY VOLUME	65 +/- 5
POT LIFE AT 25°C (Mins)	80
WET FILM BUILD (mm) - Grey	0.5 – 1.0 per coat maximum without TX55
WET FILM BUILD (mm) - Orange	1.0 – 2.0 per coat maximum

PERFORMANCE PROPERTIES	
TENSILE STRENGTH (MPa) BS6903 PART A2	20
ELONGATION (%) BS6903 PART A2	350-400
TEMPERATURE RESISTANCE (°C)	(Dry - 80°C) (Wet - 65°C)
COVERAGE (excluding wastage)	1.5 L/m ² /mm dft
CURED HARDNESS (SHORE A) BS6903 PART A57	85-90
ABRASION RESISTANCE (mg loss) ASTM D4060 (Taber) H18 Wheel	56
BASHORE RESILIENCE (%) ASTM D 2632	34

APPLICATION INFORMATION
SURFACE PREPARATION

Proper surface preparation is essential to a successful application. The following procedures should be considered:

- All surfaces must be dry and clean.
- If surface is oily or greasy, use MEK to degrease the surface.
- All surfaces must ideally be grit blasted to SA 2 ½ or better in accordance with SIS 055900 or NACE specification Number 2.
- Metal that has been handling sea water or similar should be high pressure water blasted and left overnight to allow any salts in the metal to 'sweat' to the surface. Repeat blasting may be required to 'sweat out' all the soluble salts. A test for chloride contamination should be performed prior to any application. The maximum soluble salts left on the substrate should be no more than 40 p.p.m. (parts per million).

Refer to relevant Method Statement for information on surface preparation required.

MIXING

Use a spark proof variable speed electric drill (minimum 800 RPM) fitted with a spiral or Jiffy type mixing paddle. Thoroughly shake the C component and pour into a suitable mixing vessel then add the P component ensuring in both cases that as much as possible has been poured from the cans. One technique to help with this is add a little of the P into the nominally empty C, shake and pour out. Mix for 3 minutes, scrape the sides of the mixing vessel to incorporate any unmixed material then mix again for a further 2 minutes. **DO NOT BREAK DOWN KITS.**

APPLICATION

Airless spray equipment with a minimum output at the tip of 180 Bar (2600 psi) is required. Equipment must be fitted with a 280 micron (60 mesh) tip filter – all hoses and packing to be PTFE or nylon. Typical tip sizes range from 0.51mm to 0.76mm (20-30 thou).

Irathane 155 can be applied at a WFT of up to 1mm on a vertical surface without sags or runs. To obtain the smoothest surface finish and minimize the possibility of pinholes, ensuring an evenly distributed micro porous structure, this 1mm is best applied in at least 4 coats of 0.25mm, allowing approximately 5 minutes between each coat. Each coat should be applied at right angles to the previous. Increased WFT can be achieved with the addition of Irabuild TX55 taking care to establish the amount to be used depending on temperature conditions.

CURE

Cure times are stated below, remember that the cure time will be dependent on the DFT of the material applied and figures are for 1mm. For DFT's in excess of this the cure will be slowed as solvent evaporation will take longer.

	10°C	25°C
FUNCTIONAL CURE @ 1MM /DAYS (80%)	12 (6)	4 (3)
RECOAT TIME MINIMUM (Minutes)	10	5
MAXIMUM WITHOUT REACTIVATION (Hours)	14	6
SOLVENT WIPE + UU55 (Hours)	14-26	5-8
ABRADE + SOLVENT WIPE + UU55 (Hours)	>26	>8

CLEAN UP

All equipment should be thoroughly cleaned directly after use using EC19, MEK or suitable alternative.

SHELF LIFE & STORAGE

A shelf life of 12 months from date of shipment can be expected when stored in dry conditions at room temperature (~22°C) in their original containers.

PRECAUTIONS

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

WARRANTY

ITW Performance Polymers will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control we can accept no liability for the results obtained.

DISCLAIMER

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Performance Polymers makes no representations or warranties of any kind concerning this data.

For further product information or technical assistance please call +353 61 771 500.