



TECHNICAL DATA

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IRATHANE 155

(Replacement For FUTURA-THANE 532)

ELASTOMERIC POLYURETHANE

Product Description

A two component, high solids, ambient temperature curing polyurethane coating designed to provide excellent resistance to both corrosion and abrasion in a large number of different environments. Many caustic, acid and salt water corrosion problems can be controlled by its unique combination of properties. It has a low coefficient of friction which makes it an excellent material in wet or freezing applications where release properties are important. For abrasion applications it is especially suited for slurry situations and environments where the particle size is minus 1/8 inch. The cured film possesses an unsurpassed combination of physical strength and flexibility. This combination provides the diversity necessary for a multipurpose coating.

Irathane 155 mixes and sprays easily with standard airless or conventional spray equipment. High dry film thickness can be built up in a minimum number of coats without running or sagging. The 80 minute pot life allows more than enough time to utilize the mixed material without worry. It is extremely resistant to moderate concentrations of both acid and alkaline solutions. Chemical resistance to slurries and water solutions is excellent at ambient temperatures. Long service life applications should not be continuously subjected to wet temperatures in excess of 140°F or to dry temperatures in excess of 180°F.

Primers

Steel: SA 200
Concrete: CS 2000

Typical Properties

Solids by Volume	65% ± 2
Volatile Organic Compounds	2.4 lb/gal (287 g/l)
Theoretical Coverage	1045 ft ² @ 1 mil
Recommend DFT	Gray Orange 20 – 30 mils 60 – 70 mils
Number of Coats	1 - 3
Mix Ratio (by volume)	1 "A" : 1 "B"
Shelf Life @ 60-90°F (16-32°C)	Part A 12 months Part B 12 months
Color	Orange / Gray

Specification Data

Elongation – ASTM D 412 – Die "B"	425%
Tensile Strength – ASTM D 412 – Die "B"	3000 psi
Abrasion Resistance – ASTM D 4060, H-18 wheel	56 mg loss
Tear Strength ASTM D624 – Die "C" ASTM D470 – Split Tear	460 pli 95 pli
Adhesion – ASTM D429 Method B	75 pli
Modulus – ASTM D412 – Die "B"	100% 900 psi 300% 1725 psi
Resilience – Bashore % rebound	34%
Hardness – ASTM D 2240	89 Shore A
Temperature Resistance ASTM D 573	Dry -70° to 180°F Wet 140°F (max)

Ordering Information

Packaging:	2 gal & 10 Kits
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APPLICATION INFORMATION IRATHANE 155

Surface Preparation

Remove all oil, grease or other contaminants from the surface to be coated in accordance with SSPC-SP 1.

Steel: Apply over properly prepared SA 200.

Concrete: Apply over properly prepared CS 2000.

Other: Contact ITW Futura Coatings.

Mixing

Do not mix polymer and curative components together until ready for use.

Stir the curative before adding to the polymer, combine at a 1 : 1 ratio by volume and power mix for 3 minutes, scrape bottom and sides of the container to blend in any unmixed material and mix for an additional 2 minutes. Pour into a clean container and mix again for 2 minutes.

Note: The polymer component may crystallize when exposed to temperatures below 40°F. This will not harm the material, however, the polymer should be warmed to 90°F (110°F maximum) until completely melted. Cool to room temperature before using.

Thinning

DO NOT THIN

Pot Life

Material Temperature	Time
75°F (24°C)	80 minutes

Application Conditions

	Normal	Minimum	Maximum
Material	75-90°F (24-32°C)	55°F (13°C)	90°F (32°C)
Surface	75-90°F (24-32°C)	55°F (13°C)	90°F (32°C)
Ambient	75-90°F (24-32°C)	55°F (10°C)	90°F (32°C)
Humidity	30-50%	0%	85%

- Surface temperature must be 5°F (3°C) above the dew point.

Brush or Roller: Applications using brush or roller are acceptable. Allow 60 minutes between coats. This method should be limited to single coat or thin dft applications.

Application

Airless:

Pump Ratio	30:1 min	Tip Size	.020-.030"
Material Hose*	3/8" ID min 100' max	Tip Pressure psi	2600-3000

Brush (For small touch-up areas only): Use a high quality brush suitable for use with solvent based coatings.

Spray applications: To obtain the recommended dry film thickness first apply a tack coat of Irathane 155 followed by the application of full coats of Irathane 155 at 20 – 30 mils wet film thickness per coat using multi-pass techniques until the desired dry film thickness is achieved.

Cure Time

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

Surface Temperature

	75°F
Recoat (min)	20 minutes
Recoat (max)	8 hours
Functional Cure	2 days
Full cure	4 days
Chemical Exposure	4 days

- If the material has exceeded its maximum recoat time or full cure time contact ITW Futura Coatings for recommended recoating procedures.
- Curing can be accelerated by using heat after the coating has been allowed to harden under ambient conditions for 16 hours. Do not exceed 150°F when heat curing.
- Holiday testing per NACE RP0199-98 should be conducted for all coatings going into immersion service. Use a setting of 100 volts/mil. All pinholes must be marked and repaired.

Safety Information

- Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use respirators rated for organic vapors, or in confined spaces wear fresh air respirators or fresh air hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions.
- **This product is intended for industrial use by properly trained professional applicators only.**

Storage Conditions

- Coatings need to be protected from moisture contamination. Store drums and pails in a dry location at 55-90°F (13-32°C).
- Materials **must** be kept above 55°F (13°C).

ITW FUTURA COATINGS, 1685 GALT INDUSTRIAL BLVD., ST LOUIS, MO, (314) 733-1110

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