



# TECHNICAL DATA

Revised Date: 01/2008  
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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:** Futura-Bond 610HS or SA 200  
**Concrete:** CS 2000

#### Typical Properties

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

#### Specification Data

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

#### Ordering Information

<b>Packaging:</b>	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 or Futura-Bond 610 HS.

**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
<b>Material</b>	75-90°F (24-32°C)	55°F (13°C)	90°F (32°C)
<b>Surface</b>	75-90°F (24-32°C)	55°F (13°C)	90°F (32°C)
<b>Ambient</b>	75-90°F (24-32°C)	55°F (10°C)	90°F (32°C)
<b>Humidity</b>	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.

**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
<b>Recoat (min)</b>	20 minutes
<b>Recoat (max)</b>	8 hours
<b>Functional Cure</b>	2 days
<b>Full cure</b>	4 days
<b>Chemical Exposure</b>	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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