



## TECHNICAL DATA SHEET – IRATHANE 155

Revised: 02/2024

### 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:** POLYSPEC 100EX  
**CONCRETE:** POLYSPEC 100EX

### 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>	<b>GRAY</b> 40 – 60 mils <b>ORANGE</b> 40 – 60 mils
<b>NUMBER OF COATS</b>	1 - 3
<b>MIX RATIO (BY VOLUME)</b>	1 "A" : 1 "B"
<b>SHELF LIFE @ 60-90°F (16-32°C)</b>	Part A 12 months Part B 12 months
<b>COLOR</b>	Orange / Gray

### SPECIFICATION DATA

<b>ELONGATION – ASTM D 412 – DIE "B"</b>	425%
<b>TENSILE STRENGTH – ASTM D 412 – DIE "B"</b>	3000 psi
<b>ABRASION RESISTANCE - ASTM D 4060, H-18 WHEEL</b>	56 mg loss
<b>TEAR STRENGTH</b>	<b>ASTM D624 – DIE "C"</b> 460 pli <b>ASTM D470 – SPLIT TEAR</b> 95 pli
<b>ADHESION – ASTM D429 METHOD B</b>	75 pli
<b>MODULUS – ASTM D412 – DIE "B"</b>	<b>100%</b> 900 psi <b>300%</b> 1725 psi
<b>RESILIENCE – BASHORE % REBOUND</b>	34%
<b>HARDNESS – ASTM D 2240</b>	89 Shore A
<b>TEMPERATURE RESISTANCE – ASTM D 573</b>	<b>DRY</b> -70° to 180°F <b>WET</b> 140°F (max)

# POLYSPEC® IRATHANE 155

ELASTOMERIC POLYURETHANE

**ORDERING INFORMATION**

<b>PACKAGING</b>	10 gal. kits
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**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 PolySpec 100EX.

**Concrete:** Apply over properly prepared PolySpec 100EX.

**Other:** Contact Holcim Solutions and Products US, LLC

**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.

**APPLICATION**

**Airless:**

PUMP RATIO	30:1 MIN	TIP SIZE	.020-.030o
<b>MATERIAL</b>	3/8" ID min	Tip pressure	2600-3000
<b>HOSE*</b>	100' max	psi	

**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
<b>RECOAT (MIN)</b>	2 hours
<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 Holcim Solutions and Products US, LLC. 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 100volts/mil. All pinholes must be marked and repaired.

**SAFETY INFORMATION**

- Read the Safety Data Sheet (SDS) 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).

CAUTION: Read Safety Data Sheet before using this material. Use only with adequate cross ventilation. Keep away from extreme heat, sparks and open flame. Keep from freezing. Avoid prolonged breathing of vapors. For dizziness, seek fresh air. Avoid contact with skin. Use gloves, goggles and coveralls. In case of spillage on clothing, change clothing to prevent prolonged contact with skin. Wash contaminated clothing before reuse. In case of accidental contact with skin, wash immediately with soap and water. In case of eye contact, flush thoroughly with plenty of water and call physician. If swallowed accidentally, do not induce vomiting. Seek medical attention immediately. The user of this product is responsible for making its own evaluation and tests regarding the capabilities, safety, utility, suitability and application of the product, and assumes all risks and liabilities resulting from the use or application of the product, whether used alone or with other products. EXCLUSION OF WARRANTIES: INSTALL AS DIRECTED ON AMERICAN SAFETY TECHNOLOGIES PRODUCT DATA SHEET. USER DETERMINES SUITABILITY FOR INTENDED USE AND ASSUMES ALL RISK AND LIABILITY. THIS PRODUCT IS SOLD "AS IS". EXCEPT AS REQUIRED BY LAW, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF TERMS ARE NOT ACCEPTABLE, RETURN UNOPENED PRODUCT TO PLACE OF PURCHASE.