



TECHNICAL DATA SHEET – IRATHANE 155

Revised: 05/2019

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

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% 300%
	900 psi 1725 psi
RESILIENCE – BASHORE % REBOUND	34%
HARDNESS – ASTM D 2240	89 Shore A
TEMPERATURE RESISTANCE	DRY WET
- ASTM D 573	-70° to 180°F 140°F (max)

IRATHANE 155

ELASTOMERIC POLYURETHANE



TECHNICAL DATA SHEET – IRATHANE 155

ORDERING INFORMATION

PACKAGING	10 gal. kit
-----------	-------------

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 ITW Polymers Sealants North America, Inc.

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.

APPLICATION

Airless:

PUMP RATIO	30:1 MIN	TIP SIZE	.020-.030o
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 Polymers Sealants North America, Inc. 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).

ITW Polymers Sealants North America, Inc. warrants its products to be free from defects in material and workmanship. ITW Polymers Sealants North America, Inc.'s sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at ITW Polymers Sealants North America, Inc.'s option, to either replacement of products not conforming to this warranty or credit to Buyer's account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to ITW Polymers Sealants North America, Inc. in writing within five days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify ITW Polymers Sealants North America, Inc. of such nonconformance as required herein shall bar Buyer from recovery under this warranty.

ITW Polymers Sealants North America, Inc. makes no other warranties concerning this product. No other warranties, either expressed or implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall ITW Polymers Sealants North America, Inc. be liable for consequential or incidental damages.

Any recommendation or suggestion relating to the use of the products made by ITW Polymers Sealants North America, Inc., whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment changes in procedures of use, or extrapolation of data may cause unsatisfactory results. ITW Polymers Sealants North America, Inc. cannot guarantee that color will conform to sample, if provided.