TECHNICAL DATA SHEET – IRATHANE 155

Revised: 01/2017
Replaces: 08/2014

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 it's 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: 610 HS / UU96
CONCRETE: POLYSPEC 100EX / UU96

TYPICAL PROPERTIES

SOLIDS BY VOLUME		65% ± 2
VOLATILE ORGANIC COMPOUNDS		2.4 lb/gal (287 g/l)
THEORETICAL COVERAGE		1045 ft² @ 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 - ASTM D 573	DRY WET	-70° to 180°F 140°F (max)

IRATHANE 155

ELASTOMERIC POLYURETHANE

ITW Engineered Polymers

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ORDERING INFORMATION

PACKAGING	2 gal & 10 gal. kits

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 610HS / UU96.

Concrete: Apply over properly prepared PolySpec 100EX / UU96.

Other: Contact ITW Engineered Polymers.

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-.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 curetime contact ITW Engineered Polymers for recommended recoatingprocedures.
- Curing can be accelerated by using heat after the coating hasbeen 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 forall coatings going into immersion service. Use a setting of 100volts/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 airexchange and ventilation.
- All application personnel must use respirators rated for organicvapors, or in confined spaces wear fresh air respirators or freshair hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severeallergic reactions.
- **This product is intended for industrial use by properlytrained 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).

B&W Distributors, Inc.

Authorized Distributor of ITW Engineered Polymers

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