



# TECHNICAL DATA

Revised Date: 01/2008  
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## IRASEAL 200

(Replacement For FUTURA-THANE 5042)

### POLYUREA

#### Product Description

A two component, 100% solids, fast curing pure polyurea formulated to provide excellent hydrolytic stability in long term immersion conditions. It is extremely resistant to moderate concentrations of both acid and alkaline solutions. Applied using heated, plural component spray equipment.

#### Features

- 100% solids by volume
- Zero VOC
- Unlimited film build
- Wide range of application temperatures.
- Excellent chemical resistance to slurries and water solutions
- Excellent resistance to hydrogen sulfide (H<sub>2</sub>S)
- Excellent abrasion resistance
- Excellent weathering and UV resistance
- Can be applied to geotextile fabric

#### Recommended Uses

As a primary or secondary containment lining for concrete or steel applications exposed to wastewater, fuels, and a wide range of chemicals. Also used for wastewater treatment tanks, manhole and concrete sewer pipe.

#### Primers

**Steel:** Z9411 or Futura-Bond 610 HS  
**Concrete:** Z9411 or Futura-Bond 415

#### Typical Properties

<b>Solids by Volume</b>	100%
<b>Volatile Organic Compounds</b>	0.0 lb/gal (0 g/l)
<b>Theoretical Coverage</b>	1604 ft <sup>2</sup> @ 1 mil
<b>Recommend DFT</b> (typical)	50 – 125 mils
<b>Number of Coats</b>	1 (multi-pass)
<b>Mix Ratio</b> (by volume)	1 "A" : 1 "B"
<b>Shelf Life</b> @ 60-90°F (16-32°C)	Part A 6 months Part B 12 months
<b>Color</b>	Gray

#### Specification Data

<b>Elongation</b> – ASTM D 412 – Die "B"	450%
<b>Tensile Strength</b> ASTM D 638	3000 psi
<b>Tear Strength</b> ASTM D 1004	450 pli
<b>Abrasion Resistance</b> H18 wheel / 1000 gm / 1000 cycles	81 mg loss
<b>Puncture Resistance</b> ASTM D 4833	625 pli
<b>Secant Modulus</b> ASTM D 638	600 psi
<b>Hardness</b> – ASTM D 2240	90 - 95 Shore A
<b>Temperature Resistance</b> ASTM D 573	Dry -70° to 180°F Wet 140°F (max)

#### Ordering Information

<b>Packaging:</b>	100 gal Kits
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# APPLICATION INFORMATION

## IRASEAL 200

### 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 Z9411 or Futura-Bond 610 HS.

**Concrete:** Apply over properly prepared Z9411 or Futura-Bond 415.

Other: Contact ITW Futura Coatings.

### Mixing

Power mix "B" component to a uniform consistency, "A" component does not require mixing.

**DO NOT BATCH MIX.**

### Thinning

**DO NOT THIN**

### Pot Life

Material Temperature	Time
75°F (24°C)	< 10 seconds

### 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 Equipment

#### **Heated Plural Component Airless (only)**

Applicator training is required and spray equipment must be approved by ITW Futura Coatings Technical Service

- 1:1 ratio capable of producing a minimum delivery rate of 1 ¼ gallons per minute at a tip pressure of 2500-3000 psi.
- Proportioner heaters and heated hose capable of maintaining material temperatures of 135-150°F (57-65°C) at the spray tip.
- Drum heaters capable of maintaining material temperatures of 75-90°F (24-32°C) during application
- 2:1 ratio material transfer pumps minimum.
- Contact ITW Futura Coatings for specific information.

### 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>Dry to touch</b>	20 Seconds
<b>Recoat (min)</b>	none
<b>Recoat (max)</b>	24 hours
<b>Recoat (max) if exposed to sun light</b>	12 hours
<b>Non-Immersion Service</b>	1 hour
<b>Immersion / Chemical Exposure</b>	12 hours
<b>Full Cure</b>	24 hours

- If the material has exceeded its maximum recoat time or full cure time contact ITW Futura Coatings for recommended recoating procedures.
- 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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