



The Chemical Company

PRODUCT DATA

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Fluid-Applied
Waterproofing

IC-2480

Fast-setting polyurea coating
with superior elongation

Description

IC-2480 is a two-component aromatic 100% solids sprayable polyurea elastomeric coating. It is used as a chemical-resistant, waterproof, protective coating for both vertical and horizontal surfaces. It resists corrosion and many chemicals, including hydrogen sulfide, acids, and hydrocarbon solvents. Use IC-2480 where regular thermal or dynamic movement is expected.

Yield

MIL THICKNESS	FT ² /GAL	M ² /L
20	80	2.0
40	40	0.98
60	25	0.61
80	20	0.49
125	13	0.32

Packaging

10 gallon (38 L) kits
100 gallon (379 L) kits

Color

Tan, gray, and black

Shelf Life

2 years when properly stored

Storage

Store this product in a clean, dry, low-humidity environment at 60 to 90° F (15 to 32° C).

Features

- Serviceable within 1 hour
- Excellent chemical resistance
- Two-component reactive cure
- Superior elongation
- Zero VOCs (100% solids)

Benefits

- Reduces facility downtime
- Suitable for many primary and secondary containment
- Sets in seconds
- Excellent crack-bridging ability; handles a wide range of thermal movement
- Environmentally responsible

Where to Use

APPLICATION

- Where resistance to hydrogen sulfide is required
- Primary and secondary containment for fuels, oils, fertilizers, solvents, and chemicals
- As a protective coating for concrete, wood, steel and other metals
- Tanks
- Water and wastewater
- Pond liners
- Landfills
- Manholes
- Mines
- Floors
- Railcars

LOCATION

- Horizontal or vertical
- Interior or exterior
- Above and below-grade

SUBSTRATE

- Concrete
- Metal

How to Apply

CONCRETE

1. The surface being coated must be fully cured 28 days, structurally sound (200 psi or greater according to ASTM D 4541), clean (ASTM D 4258), and dry (less than 5%, ASTM D 4263).
2. It must have low moisture-vapor transmission (less than 3 lb/24 hr/1,000 ft², RMA Test Method).
3. Profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting or hydroblasting. Remove contaminants before blasting.
4. Fill all voids and cracks greater than 0.060" to achieve a uniform coating surface. Voids and cracks can be pre-filled with the appropriate repair materials. Contact your Sonneborn® representative for additional information on concrete-repair products.



Technical Data

Composition

IC-2480 is a two-component 100% solids aromatic polyurea.

Compliances

- Meets the Polyurea Development Association (PDA) definition of a pure polyurea coating
- Meets the National Association of Corrosion Engineers (NACE, 6A198) definition for a polyurea coating
- Meets the requirements of Los Angeles County for use in wastewater treatment
- USDA compliant for use in meat and poultry areas

Typical Properties

PROPERTY	VALUE
Application temp , ° F (° C)	-10 to 120 (-23 to 50)
Service temp , ° F (° C)	-60 to 350 (-51 to 177)
Ratio by volume	1 to 1
Spray pressure , psi (MPa)	2,500 (17.2)
Gel time , sec	6
Tack-free time , sec 30	
Meter equipment	Plural
Gun requirements	Impingement

Test Data

PROPERTY	RESULTS	TEST METHODS
Viscosity , cps		Brookfield
Part A	400	
Part B	500	
Tensile , psi (MPa)	2,500 (17)	ASTM D 412
Elongation , %	480	ASTM D 412
Hardness , Shore D	45	ASTM D 2240
Tear , T; pli	270	ASTM D 1938
Tear , C; pli	410	ASTM D 624
Abrasion resistance , mg lost; CS17 wheel, 1,000 g, 1,000 cycles	8	ASTM C 957
Impact resistance	Pass	ASTM D 2444
Puncture resistance , lb (kg)	350 (159)	ASTM D 4833
Crack bridging , 1/8" at 60 mils	Pass	ASTM C 836
Mandrel bend , 1"	Pass	ASTM G 11
Concrete adhesion , psi (MPa)	350 (2.4)	ASTM D 4541
Moisture vapor transmission		ASTM E 96
Cm/s	9.3 x 10 ⁻⁹	
Perms	0.038	
Negative hydrostatic pressure , psi (MPa)	529 (3.6)	ASTM D 751
QUV weatherometer , 7,000 hrs	Pass, 313B; no crack, loss of gloss	ASTM G 53
Soil burial test , retention of 95% of properties	Pass	ASTM D 3083
Immersion test for liners , transformer oil	Pass	EPA 9090A
Horizontal burn test	Pass	UL 94 HB

Chemical Resistance¹

CHEMICAL	RESULTS
H ₂ SO ₄ (20%)	Slight surface change; no hardness loss
Diesel fuel	No visible damage
HCl (10%)	No visible damage
NaOH (50%)	Slight surface discoloring; no hardness loss
Gasoline	Slight surface change; no hardness loss
Acetic acid (10%)	No visible damage

¹Test method: ASTM D 3912 (12 month exposure); call your Sonneborn® representative for specific chemical results.

STEEL

1. Steel surfaces must be cleaned before blasting (SSPC-SP1). Remove any sharp edges and other surface imperfections.
2. Dry abrasive blast surface according to SSPC-SP-10/NACE No. 2 (0.003" profile).
3. Remove any nonvisible soluble salt contamination (less than 3 µg/cm², NACE 6G186, CHLOR*RID).
4. Apply coating only if steel surface temperature is 5° F above the dew point to avoid application over damp surface.
5. Apply primer and coating within the same day and before the prepared steel surface is chemically contaminated and before rusting reoccurs.

GEOTEXTILES

1. IC-2480 can be used with nonwoven heat-treated polypropylene geotextiles. Protect geotextile surfaces from damage before applying coating. Only walk on geotextile while applying coating to prevent scuffing or frayed surfaces. Minimize wrinkles when laying out geotextile.
2. Apply coating over entire geotextile before adhering it to perimeter surfaces. Use the coating to bond geotextile to perimeter surface after the entire area has cured for 60 minutes or else bury the coated geotextile in a trench surrounding the application area.

OTHER SURFACES

Contact your Sonneborn® representative for application over other surfaces.

Metering

1. Precondition material to 70° F (21° C) before metering begins.
2. IC-2480 must be sprayed with a plural-component Gusmer H20/35 series metering system or its equivalent. Meter should be able to heat Part A and Part B to 150 – 180° F (65 – 82° C). Meter must generate a minimum of 2,000 psi (13.8 MPa) and maintain a stable pressure difference between Part A and Part B during application.
3. Thoroughly pre-mix Part B with a drill and paddle to redistribute any settled material. Use a GX-DI, GX-7 400, or GX-8 gun with the proper mixing-module orifices to balance the pressure between Part A and Part B. Contact your Sonneborn® representative for additional information on pumping equipment.

Application

1. Priming is required. Allow IC-2000 PSW primer to set up according to instructions. See the data sheet on IC-2000 PSW Primer (Form No. 1019016) for more information.
2. Spray IC-2480 in a consistent sweeping pattern 15 – 20 mils per pass. Maintain proper ratio of Part A and Part B to build the desired mil thickness.
3. Recoat within 12 hours of application at 70° F (21° C). After 12 hours, mechanically abrade the surface and clean it with acetone. Reapply within 1 hour.

Clean Up

Use IC-Gun cleaner to clean guns and parts. If necessary, flush the metering equipment with IC-Pump Lube. Consult a Sonneborn® representative for more information on clean-up procedures.

For Best Performance

- To avoid blisters and poor adhesion, do not apply coating when the temperature is within 5° F of the dewpoint or the humidity is above 85%.
- Failure to properly detail application area may result in cracking or other premature failure of the coating.
- To minimize outgassing, apply primers and coatings when air and surface temperatures are falling.
- IC-2480 color will discolor or fade under UV light; however physical and performance properties will not be affected.
- Do not exceed 20 mils per pass.
- Outgassing can produce pinholes or blisters in coating systems and should be minimized. Pinholes can be combated with primers and multiple thin applications of coating (less than 0.010" per coating layer).
- Refer to MSDS provided with each shipment. It is the responsibility of the end user to determine the level of chemical contaminant during handling or spraying and to use the appropriate respiratory protection under such conditions. Fresh air apparatus is required for confined spaces while spraying, and they may also be required in open-air spaces with high chemical contamination. Always use with adequate ventilation and use the required personal protection equipment. Use half-face, dual cartridge organic respirators with appropriate filter. Always wear eye protection. Protect skin with gloves, boots and long-sleeved coveralls.

- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

IC-2480 PART A

Warning

IC-2480 Part A contains methylene bisphenyl diisocyanate, diphenylmethane diisocyanate, and diphenylmethane diisocyanate prepolymer

Risks

May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. Empty container may contain hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product does not knowingly contain material listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

0 lbs/gal or 0 g/L, less water and exempt solvents.

IC-2480 PART B

Danger—Corrosive

IC-2480 Part B contains glyceryl poly(oxypropylene) triamine, diethyltoluenediamine, and poly(oxypropylene)diamine.

Risks

Contact with skin or eyes may cause burns. Ingestion may cause irritation and burns of mouth, throat and stomach. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. DO NOT get in eyes, on skin or clothing. Wash thoroughly after handling. Keep container closed. DO NOT take internally. Use only with adequate ventilation. DO NOT breathe vapors. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. Empty container may contain hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

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**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

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