



POLYUREA 207

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PRODUCT DESCRIPTION

Polyurea 207 is a two-part, spray-applied coating composed of 100% pure aromatic polyurea, engineered for superior abrasion resistance. It can be applied to both vertical and horizontal surfaces, forming a seamless protective layer that provides excellent corrosion and impact protection. Its fast gel and cure times allow for single or multiple coats with minimal sagging, and it adheres effectively to a wide variety of substrates.

GENERAL USES

Recommended Uses: Transportation and Utilities, Industrial and Manufacturing Facilities, Mining, Water and Wastewater Facilities, Material Processing and Handling, and Beverage/Food Processing/Cold Storage Facilities.

Features: Excellent Abrasion Resistance, Chemical Resistant, No VOC's, 100% solid material, No primer for carbon or mild steel metals, Fast turnaround time, and Excellent thermal stability.

TECHNICAL DATA

	UNITS	VALUES	TEST METHOD
MIX RATIO		1A:1B	
GEL TIME @ 150° F (66° C)	Seconds	10	
TACK FREE TIME	Seconds	17	Thickness/Substrate Temp. Sensitive
VISCOSITY AT 75° F (24° C)	cPs		Brookfield
PART A		1400	
PART B		500	
SHORE HARDNESS	Shore D	50-55	ASTM D2240
TABER ABRASION	mg/rev. loss	0 < 50	CS-17 wheel; ASTM D4060 H-18 wheel; ASTM D4060
TENSILE	psi	3500	ASTM D412
TEAR	pli	500	ASTM D624
ELONGATION	%	350	ASTM D412
VOC CONTENT	g/l	0	

NOTE: PHYSICAL PROPERTIES MAY VARY ON THE TYPE OF SPRAY EQUIPMENT USED. THE END USER SHOULD CHECK THE SUITABILITY OF THIS PRODUCT PRIOR TO USE

PACKAGING

Polyurea 207 is supplied as a kit containing 52 gallons of Part-A (Isocyanate) and 52 gallons of Part-B (Resin) in two 55-gallon drums. For larger applications, 275-gallon IBC totes are also available.

SURFACE PREPARATION

Proper surface preparation is the critical first step before applying any coating. The performance and longevity of a coating depend largely on its ability to adhere effectively to the substrate. Correct surface preparation is widely recognized as the single most important factor in achieving successful surface treatment. Even small amounts of contaminants—such as oil, grease, oxides, or dirt—can compromise adhesion and reduce coating performance.

Ensure all surfaces are clean, dry, and sound, with sufficient profile to achieve proper adhesion. Remove dust, efflorescence, laitance, salts, curing compounds, dirt, oil, form-release agents, and any other foreign matter. Perform an adhesion test before beginning any coating project.

Metal and Composite Fiber Surfaces: Thoroughly clean and prime for optimal adhesion, or lightly abrade via blasting to achieve a 2–3 mil profile. Consult your representative for guidance.

Concrete Surfaces: Concrete should be fully cured for a minimum of 28 days and have a compressive strength of at least 3,000 psi before coating. If the surface is unsuitable, apply a suitable primer or a primer with sand as a repair agent. Once repairs are cured, prime the entire surface intended for coating. Contact Rugged Coatings for recommendations on selecting the best primer for your substrate.

EQUIPMENT CLEAN-UP

Clean all equipment immediately after use with an environmentally safe solvent, in accordance with local regulations. Cured or dried material must be removed mechanically. Be familiar with your equipment and follow recommended routine maintenance procedures.

SPRAY MACHINE REQUIREMENTS

- Capacity minimum 20 lbs. per minute
- Static pressure 1800 – 2500psi
- Spraying pressure 2200psi
- Pressure balance 100 variance desirable
- 300 psi variance maximum
- Temperatures preheaters & hose 150°F-160°F each. Check with your local representative
- Polyurea 207 should be sprayed in a smooth pattern, to establish uniform thickness and appearance. Perform a substrate adhesion test (if required) seven days after application of POLYARMOR SRD 5400.

COVERAGE RATE

One gallon (3.79 liters) of Polyurea 207 will cover approximately 1,600 square feet at a thickness of 1 mil (0.025 mm). The coating can be applied in one or multiple passes to achieve the desired thickness.

COLOR

Standard colors are Black and Neutral. Non-standard colors and custom color packs are available upon request. Note: Aromatic polyureas may yellow or darken when exposed to UV light or sunlight.

MIXING PROCEDURES

Thoroughly mix Polyurea 207 Part-B (Resin) using air-powered tools until the color and consistency are uniform, with no streaks or striations.

STORAGE

Polyurea 207 has a shelf life of one year from the date of manufacture when stored in factory-sealed containers. Both Part-A and Part-B should be kept at temperatures between 55°F and 95°F, avoiding freezing conditions. Keep containers tightly sealed to prevent condensation, moisture, or water contamination. For partially used containers, flush with nitrogen before resealing, or use Visuron's 'Quick Burp' aerosol for convenience..

APPLICATION

Primer is recommended for all substrates except properly prepared steel (note: immersion service requires a primer). Before application, precondition both Part-A and Part-B to 75°F–80°F (24°C–27°C). Ensure the substrate and ambient air temperatures are between 40°F and 104°F, and at least 6°F above the dew point with temperatures rising. Equip Part-A with a desiccant drying device. Apply Polyurea 207 using plural-component, high-pressure, 1:1 ratio heated spray equipment.

CONCRETE REPAIR

If the concrete surface is unsuitable for coating, apply an appropriate primer or a primer mixed with sand as a repair agent. Once the repair has fully cured, prime the entire surface to be coated. Contact The Hanson Group for guidance in selecting the most suitable primer for your substrate.

WARRANTY AND DISCLAIMER

Rugged Coatings warrants Polyurea 207 to be free from defects in materials and manufacturing. Under this warranty, we will provide, at no charge, a quantity of Polyurea 207 sufficient to replace any Polyurea 207 proven to be defective when applied according to our written instructions and in applications recommended by us as suitable for the product. THIS LIMITED WARRANTY IS THE BUYER'S SOLE AND EXCLUSIVE REMEDY AGAINST RUGGED COATINGS REGARDING THE PRODUCT. IN NO EVENT SHALL RUGGED COATINGS BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR OTHER DAMAGES ARISING FROM THE USE OR PERFORMANCE OF THE PRODUCT. Since methods of application and on site conditions can affect performance, RUGGED COATINGS MAKE NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE REGARDING THE PRODUCT, AND RUGGED COATINGS HEREBY DISCLAIM ALL SUCH OTHER WARRANTIES. The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of Rugged Coatings. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of the publication. Consult your Rugged Coatings Technical Representative to obtain the most recent Product Data **Information**. If further information is needed, contact Rugged Coatings Technical Service at 205-440-4996.