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PolyArmor 2000-80

TECHNICAL DATA SHEET

PolyArmor 2000-80 is a 100% solid elastomeric two-component spray applied aromatic hybrid polyurea, used as a protective or waterproofing coating with good low temperature resistance designed for commercial, industrial and manufacturing atmospheres. POLYARMOR 2000-80 is used in vertical and horizontal applications on concrete, wood, geotextile fabrics, and metal surfaces. Its quick gel and set time is convenient and allows for application to proceed while air and substrate temperatures are between 32° F (0° C) and 104° F (40° C). It can be sprayed in one or more passes and is insensitive to moisture.

FEATURES

- Very low temperature resistance
- Excellent water-resistance
- Complies with SCAQMD Requirements - 100% Solids
- Complies with the Polyurea Development Associations (PDA) definition of a hybrid polyurea coating
- Installation with or without reinforcement
- Can be applied on geotextile fabric
- Odorless
- Very good thermal stability

RECOMMENDED USES

- Cold Storage Facilities
- Amusement Parks/Entertainment
- Planters/Tunnels/Underground Vaults
- Secondary Containments
- Industrial/Manufacturing Facilities
- Marine
- Institutional/Medical/Pharmaceutical
- Military
- Mining/Timber
- Parking Structures
- Transportation

TECHNICAL DATA

	Units	Values		Test Method
MIX RATIO BY VOLUME		1A:1B		
GEL TIME / TACK FREE	sec	10 / 120	Sprayed	
RECOAT TIME	hrs	0-6	Sprayed	
DENSITY				
PART A	lbs/gal	8.5-9.5	Calculated	DIN 53479
PART B	lbs/gal	8.0-9.0	Calculated	DIN 53479
VISCOSITY @ 75° F (24° C)				
PART A	cps	700-1200		Brookfield
PART B	cps	300-800		Brookfield
SHORE HARDNESS	Shore A	80	Sprayed	ASTM D-2240
TENSILE	psi	1700	Sprayed	ASTM D-412
ELONGATION	%	400	Sprayed	ASTM D-412
TEAR	pli	220	Sprayed	ASTM D-624
TABER ABRASION	mg/rev. loss	80/1000 <1/1000	H-18 wheel CS-17	ASTM D4060
TOUGHNESS	psi	4000	Sprayed	ASTM D-412
FOOT TRAFFIC	hrs	4	Sprayed	
FULL SERVICE	hrs	24	Sprayed	
PERCENT SOLIDS	%	100 (0 g/l VOCs)	Calculated	ASTM D-2369

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

PRECAUTIONS: Part-A contains an Isocyanate. Before using, refer to Safety Data Sheets (SDS). Ensure the same safe working methods are followed for all persons in the work area. Wear suitable protective clothing, rubber gloves and safety goggles with side shields during mixing and application. Respiratory masks should be worn at all times. Contact with skin-wash immediately with soap and water. Contact with eyes-rinse immediately with lots of water and seek medical attention. Keep away from children. **NOTICE:** Read all the information in this product information bulletin, and safety data sheet (SDS) before applying any material. The information contained herein is for the purpose of identifying the product and does not constitute a warranty or guaranty that the product will conform to this description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors. All published information and specifications are subject to change without notification. Technical data shown in product data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors. All recommendations, statements and technical data contained in this data sheet are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind. Satisfactory results depend upon many factors beyond the control of The Hanson Group, LLC. User shall rely on their own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from their direct use, indirect use or consequential to their use of the product. The Hanson Group, LLC shall not be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. Products manufactured by The Hanson Group, LLC are free of defects for a period of one (1) year from time of manufacture. Liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the materials in question. PolyArmor® is a trademark registered in the US Patent and Trademark Office. The marks of The Hanson Group, LLC, its divisions, slogans, emblems, other marks appearing in this document are the trademarks and/or service marks of The Hanson Group, LLC, its subsidiaries, affiliates or licensors.



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SURFACE PREPARATION

Surface preparation is the essential first stage treatment of a substrate before the application of any coating. The performance of a coating is significantly influenced by its ability to adhere properly to the substrate material. It is generally well established that correct surface preparation is the most important factor affecting the total success of surface treatment. The presence of even small amounts of surface contaminants, oil, grease, oxides etc. can physically impair and reduce coating adhesion to the substrate. Be sure that surfaces are clean, dry, and sound and give sufficient profile to obtain adequate product adhesion. Remove all dust, efflorescence, laitance, salts, curing compounds, dirt, oil, form release agents, and other foreign matter. Perform an adhesion test prior to starting any coating project. Metal and composite fiber surfaces should be thoroughly cleaned and primed for optimum adhesion or light abraded by blasting to a 2-3 mil profile. Consult your representative for further information. Concrete should be cured for a minimum of 28 days prior to product application and have at least 3000psi compressive strength. If the concrete surface is unsuitable for coating, use a suitable primer or suitable primer with sand as a repair agent. Once the repair has cured, prime the entire surface intended for coating. Consult The Hanson Group for selecting the best primer for your substrate.

COLOR

Black and Neutral – Non Standard colors and color packs are available upon request. Add color to Part-B only. Aromatic polyureas are known to yellow or darken in color when exposed to UV and/or sunlight.

COVERAGE RATE

1 gallon (3.79 liters) of POLYARMOR 2000-80 will cover approximately 1600 square feet at 1 mil (0.025mm) thick, and can be applied in one or more passes to achieve a desired thickness.

PACKAGING

52 gallons Part-A (Isocyanate) and 52 gallons Part-B (Resin) packaged as a “kit” in 2x55 gallon drums. 275 gallon IBC Totes are available.

MIXING PROCEDURES

Do not dilute PolyArmor 2000-80 under any circumstances. Adequately blend POLYARMOR 2000-80 Part-B (Resin) with air driven power tools until the mixture and color is consistent and uniform with no striations.

STORAGE

POLYARMOR 2000-80 has a shelf life of 1 year shelf life from the date of manufacture, in factory-sealed containers. Storage temperature for Part-A and Part-B is between 55°F - 95°F. (Avoid freezing temperatures). Keep containers sealed tightly to eliminate any condensation, moisture, or water contamination in Part-A or Part-B. Use a Nitrogen to flush partial containers before re-sealing.

EQUIPMENT CLEAN-UP

Immediately clean equipment with an environmentally safe solvent, as permitted by local regulations. Cured or dried material may be removed by mechanical means. Know your equipment and how to perform routine maintenance.

APPLICATION

Primer is recommended on all substrates, except on properly prepared steel (immersion service requires a primer). Prior to application: Precondition both Part-A and Part-B to 75°F - 80°F (24°C - 27°C). Ensure that the substrate and outside air temperature is between 40°F and 104°F, and at least 6°F above the dew point and rising. Fit Part-A with a desiccant drying device. Apply POLYARMOR 2000-80 using plural component, high pressure 1:1 ratio heated spray equipment.

TYPICAL 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 155°F-165°F each. Check with your local representative
- POLYARMOR 2000-80 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 2000-80.