



**POLYCOAT
PRODUCTS**

A Division of American Polymers Corp.

TECHNICAL DATA SHEET

PSE 4185A-UV-FR-SILVER

Polyurea-Urethane High Performance Coating

Product Description

PSE 4185A FR is a 100% solids polyurethane-urea hybrid coating. PSE 4185A FR is an aromatic coating designed to be an elastomeric coating for all substrates, providing excellent chemical and abrasion resistance. This product has been formulated it with FR and has NOT been test for any specific ASTM.

Properties

PSE 4185A FR combines the processing advantages of a polyurea with the economical performance of a polyurethane coating.

- Improved low temperature flexibility
- Improved tensile and elongation properties
- Lower sensitivity to moisture during application
- Improved low temperature cure
- Aluminum UV resistant

Applications

PSE 4185A FR can be built up to any thickness. A minimum of 60 mils in two passes is recommended for exterior applications.

Typical Uses

- Water proofing for Urethane foam roofing
- Secondary containment coating-provides a chemical resistant membrane over concrete and steel in approved tank farms
- Gasoline and chemical resistance for Styrofoam flotation
- Abrasion resistance over wood, metal and concrete.- Water and chemical resistance for concrete block and poured walls.

Typical Properties Side-A (ISO)

Viscosity @ 77°F (25°C)	500-600 cps
Specific Gravity @ 77°F (25°C)	1.25
Wt./gallon @ 77°F (25°C)	9.63 lbs/gal
Appearance @ 77°F (25°C)	liquid

Typical Properties Side-B (polyol blend)

Viscosity @ 77°F (25°C)	650-850 cps
Specific Gravity @ 77°F (25°C)	0.984
Wt./gallon @ 77°F (25°C)	8.2
Appearance @ 77°F (25°C)	viscous liquid

Typical Physical Properties

Hardness, Shore A	82-85
Elongation, 77°F (25°C)	320%
Tensile Strength	1720 psi (11.9 MPa)
Tear Strength, Die C	225 pli (39.4 kNm)
Practical Coverage @ 50 mils	100ft ² /3gal
Water Absorption, 75°F 30 days	2%
Taber Abrasion c17, 1000g	11.4mg/1000 cycles

Processing Characteristics

Solids by Weight and Volume	100%
Mix Ratio by Volume	1:1
Gel Time	7-10 sec
Side-A temperature	120-140°F (49-60°C)
Side-B temperature	140-160 (60-71°C)
Line temperature	110-130 (43-54°C)



Storage and Handling

Containers for both Side-A and Side-B components should be kept tightly closed to prevent moisture contamination. Do not reseal if contamination is suspected. Use of a dry nitrogen blanket for partial drums is recommended. Side-B may be stored at ambient temperatures. Storage for Side-A should be maintained between 77°F (25°C) and 95°F (35°C). For best results, this product should not be allowed to freeze, although it may be re-heated in a well ventilated oven for a period of time to re-liquefy solid particles. To avoid product degradation, product temperature during re-heating should not exceed 140°F (60°C). An additional note of caution is that exposure to temperatures over 400°F (204°C) can create excessive pressure potentially causing containers to rupture. Do not breathe aerosol or vapors and avoid contact with skin and eyes. Exposure to vapors of heated MDI can be dangerous. To heat product properly, use well ventilated convection ovens or other methods that distribute heat evenly. Avoid using drum heaters or other heat sources that may cause excessive local heating.

Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling any of the products listed above. Before working with these products, it is your responsibility to read and become familiar with the available information on its hazards, proper use and handling. This is extremely important and cannot be overemphasized. Information is available in several forms, e.g. material safety data sheets and product labels. To obtain this information, contact your Polycoat Products representative.

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