PolyGreen Solutions

"Polymer Solutions for Sustainability"

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Technical Data Sheet for *Polyurea Aliphatic 307*

DESCRIPTION

PAL-307 Series is a two-component, spray-in-place flexible 100% solids aliphatic (color stable) polyurethane/ polyurea system. This product provides a flexible but extremely tough monolithic membrane with excellent water and chemical resistance.

Recommended Uses

PAL-307 Series is designed for use in harsh environments where high temperature, chemical and/or abrasion resistance is required. It exhibits excellent adhesion to most materials and is suitable as a protective, abrasion/ impact liner for cementatious, wood or metal surfaces.

TYPICAL PROPERTIES

PROPERTY	TEST METHOD	COMPONENT A	COMPONENT B
Color	N/A	Light Yellow	Off-White or Black
Specific Gravity	ASTM D-1638	1.15	1.08
Viscosity	Brookfield LVF	600 cps + 100	1000 cps + 100
Mixing Ratio	By Weight	53	47
Pounds per Gallon	From Specific Gravity	9.6	8.9

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	RESULT
Shore A Hardness	ASTM D-2240	85-90
Density (pcf)	ASTM D-1622	70
Tensile Strength	ASTM D-2370	2300 psi Min.
Abrasion Resistance (Taber)	ASTM D-4060	0.3% per 1,000 cycles
Elongation %	ASTM D-2370	300% Min.
Tear Strength	ASTM D-1004	400 ppi Min.
Moisture Vapor Transmission, Perms	ASTM E-96	0.025 @30 Mils.

Polyurea Aliphatic 307 APPLICATION INFORMATION

Substrate Parameters

The substrate must be dry! A minimum of 5°F above the dew point is mandatory. The ambient relative humidity should not be above 85%. Pin holing may occur if the above parameters are not strictly followed. Applicator shall check initial climatic conditions. A small area shall be sprayed and check for proper application. Applicator may continue, if upon close inspection, the sprayed sample meets quality standards.

The material theoretically will cover 1,604 square feet at 100 mil dry film thickness. Coverage of the substrate should include a waste factor based on conditions at the site and type of substrate to which the material is being applied.

Spray Equipment

Spray equipment must be designed to produce a minimum of 2500 psi with an output of 1.5 gallon per minute. The heating component of the equipment must be able to maintain a temperature at the gun of 150°F. The hose on the equipment must be heated and be rated a minimum of 3,000 psi burst pressure. The spray gun must also be rated at the pressures and throughputs required. It is recommended to agitate the Resin component for 20-30 minutes prior to application using an air or drill powered drum mixing paddle.

PRODUCT APPLICATION PARAMETERS

PROPERTY		COMPONENT A	COMPONENT B
Minimum System psi		2200 psi	2200 psi
Temp. at Spray Gun		145°F	145°F
Gel Time		Instantaneous	Instantaneous
Total Cure		24 Hours	24 Hours
Product Working Temp.		-40°F - 280°F	-40°F - 280°F
Relative Humidity		MAX 85%	MAX 85%