



GUARDIAN ROOF POLYMERS ALIPHATIC TOP COAT SC

A. DESCRIPTION:

Guardian Roof Polymers (GRP) aliphatic top coat SC is a VOC compliant, aliphatic urethane topcoat that exhibits excellent weatherability, adhesion and durability. GRP aliphatic top coat SC – WHITE is designed to add high reflectivity and excellent UV resistance to other GRP urethane coatings such as GRP aromatic base coat PC2. The coating can also be used on substrates such as aged galvanized metal, primed with an appropriate epoxy primer for adhesion as needed, to provide protection and enhanced aesthetics.

B. RECOMMENDED USE:

This coating is designed as a long lasting, highly reflective, UV resistant topcoat over GRP urethane coatings and primers for roof applications.

C. LIMITATIONS:

Do not apply to silicone roof materials. Surface should be clean, dry and free from contaminants.

D. PACKAGED PRODUCT DATA**:

PROPERTY	DESCRIPTION
COLOR	U9200 – WHITE
ADHESION	Excellent adhesion to GRP aliphatic top coat SC and aromatic base PC2 urethane coatings. Primers may be necessary with other substrates
THEORETICAL COVERAGE	100ft ² / gal / 12 Mil DFT
SOLIDS	Weight: 82 % ASTM D1644 Volume: 77 % ASTM D2697
STORAGE STABILITY	One (1) year @ 40 – 100 °F (4.4 – 37.8 °C)
TOXICITY	Contains isocyanates
V.O.C.	< 50 g / L EPA Method 24
FLASH POINT	> 61 °F (> 16 °C) (closed cup)
VISCOSITY	< 15,000 cps
DENSITY	10.7 lbs / gal (1.28 kg / L)

E. PHYSICAL PROPERTIES:

PROPERTY	ASTM TEST	REQUIREMENT	RESULT
TENSILE STRENGTH – INITIAL	D2370	>= 200 psi (> 1.37 MPa)	910 psi (6.27 MPa)
ELONGATION AT BREAK – INITIAL	D2370	>= 100 %	627 %
ELONGATION AT BREAK – 1000 HOURS	D2370	>= 100 %	578 %
TEAR RESISTANCE (DIE C)	D624	60 min.	223 lb / in (3.98 kg / mm)
LOW TEMPERATURE FLEX	D522	-15 °F (-26 °C)	Pass
LOW TEMPERATURE FLEX – 1,000 HOURS	D522	-15 °F (-26 °C)	Pass
WATER VAPOR PERMEABILITY – 20 MILS DFT	E96	50 Perms. max	6 Perms
WET ADHESION SUBSTRATES			
<i>GRP U91 SERIES URETHANE COATING</i>	C794 / D903	2.0 lb (0.91 kg) min.	33.5
<i>AGED GALVANIZED STEEL (PULL TEST REQUIRED)</i>		2.0 lb (0.91 kg) min.	14.5
WATER SWELLING	D461	20 % max	9 %
SOLAR PERFORMANCE		INITIAL	AFTER SOILING
<i>SOLAR REFLECTANCE – U9200 WHITE</i>	C1549	0.85	0.73***
<i>THERMAL EMITTANCE – U9200 WHITE</i>	C1371	0.89	0.90***
<i>SOLAR REFLECTIVITY INDEX – U9200 WHITE</i>	E1980	107	90***

F. APPLICATION:

STEP	INSTRUCTIONS
THINNING	Thinning is typically not needed.
MIXING	Mix coating thoroughly using a mechanical mixer.
POT LIFE	Unlimited when protected from atmospheric moisture.
SURFACE PREPARATION	Surface should be clean and dry prior to applying GRP aliphatic top coat SC coatings. Sweep or blow debris from surface and wash substrates then allow to dry thoroughly. Metal substrates should be primed. Concrete substrates should be primed with an appropriate Epoxy Sealer.
APPLICATION	Apply GRP aliphatic top coat SC coatings using a brush or roller. Apply at a maximum rate of 1.5 gal / 100 ft ² (0.61 L / m ²) for a wet film thickness of 24 mils (19 mils dry).
DRY TIME	Twenty-four (24) hours depending on temperature and humidity.
CLEAN UP	Use Xylene urethane thinner for cleanup.

** For specific Health and Safety information please refer to applicable Safety Data Sheet