

Gaco Western

S I N C E 1 9 5 5

Product Data Sheet:

GacoFlex U91
September 2017
Supersedes 4/16

GACOFLEX™ U91 **SINGLE-COMPONENT MOISTURE CURE POLYURETHANE**

- DESCRIPTION:** GacoFlex U91 is a single-component moisture cure polyurethane.
- USAGE:** GacoFlex U91 is intended primarily for use as a liquid applied waterproofing coating for plywood and concrete decking as part of pedestrian and vehicular decking systems. It may also be used in roofing applications and shower pan liner applications.
- CONSISTENCY:** GacoFlex U91 is thixotropic in nature and has a viscosity of approximately 8000 centipoises.
- COLOR:** Oyster (01), Pewter (02), Shale (16), Adobe (18)

APPLIED PRODUCT DATA

WEATHERABILITY: Excellent weatherability and chalk resistance.

PHYSICAL PROPERTIES:

	ASTM Test	U91
Tensile		
Strength	D412	2100 PSI
Elongation	D412	350%
Permanent set at break	D412	7% max
Tear Resistance	D624	360 pli
Hardness @ 70°F	C836	77 Shore A

PEDESTRIAN AND VEHICLE DECKING

Exceeds requirements of ASTM C957 Standard Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane with Integral Wearing Surface. As required by the International Building Code 2012, section 1507.17 and the International Residential Code 2012, Section R905.15.

	ASTM Test	Required	U91
Weight Loss of Base Coat	C1250	<40%	4%
Low Temp Crack Bridging	C1305 / C957	No Cracking	Pass
Adhesion in Peel (after water emersion)			
Cement	C794 / C957	>5 lbf	19 lbf
Plywood	C794 / C957	>5 lbf	22 lbf



	ASTM Test	Required	U91
Chemical Resistance (Min, % tensile variation)			
Water	D471 / D412	>70%	99%
Ethylene Glycol	D471 / D412	>70%	99%
Mineral Spirits	D471 / D412	> 45%	98%
Weathering Resistance and Recovery from Elongation (500 hr. xenon arc and 7 days at 158°F)			
Recovery from Elongation - Initial	G1442 / G155	>90%	99%
Tensile Retention	G1442 / G155	>80%	123%
Elongation Retention	G1442 / G155	>90%	99%
Abrasion Resistance	C501	<50mg	35mg
Stability in Can	C957	6 month	Pass

WIND UPLIFT PRESSURE RESISTANCE

	Test	Required	U91
ANSI/FM Approvals 4474, Appendix B Simulated Wind Uplift Pull Test	FM 4474	1,005 psf	Pass
Florida Building Code test protocol for the High Velocity Hurricane Zone (HVHZ), Testing Application Standard TAS 114-95, Appendix D: Test Procedures for simulated Uplift Pressure Resistance of Adhered Roof System Assemblies	TAS 114	1,005 psf	Pass

FIRE PERFORMANCE

	ASTM Test	U91
External Fire Exposure – Spread of Flame	E108	Class A Unlimited Slope

SHOWER PAN LINER – TILE APPLICATIONS:

GacoFlex U91 exceeds requirements ANSI 118.10 – Standard Specification of Load Bearing Bonded Waterproofing Membranes for Thin Set Ceramic Tile and Dimensional Stone Installation. Meets the requirement of the International Plumbing Code 2012, section 417.5.2.6 and the International Residential Code 2012, Section P2709.12.

	ASTM Test	Required	U91
Seam Strength	D751	8 lb/in	20.3 lb/in
Breaking Strength	D751 – Procedure B	170 psi	440 psi
Dimensional Stability	D1204	0.7%	0.27% @ 150°F
	D1204	0.7%	0.03 @ -15°F
Waterproofness	D4068	No Leak	Pass
Sheer Strength			
7 Day – Dry	D482	50 psi	55 psi
4 Week – Dry	D482	50 psi	88 psi
28 Week – Dry	D482	50 psi	120 psi
7 Day - Water immersion	D482	50 psi	57 psi
100 Day - Water immersion	D482	50 psi	59 psi



PACKAGED PRODUCT DATA

APPLIED COVERAGE: 1 Gallon/100 Sq. Ft. per coat to yield a final dry film thickness of 12.8 mils.

SOLIDS: Volume: 80%

VOC: 150 g/l

TOXICITY: Contains a toluene diisocyanate prepolymer.

FLASH POINT: ASTM D56 (Closed Cup) 100°F (37°C)

ADHESION: Product has shown excellent adhesion to GacoFlex E5320.

STORAGE STABILITY: 6 months at 50° to 80°F (10° to 27°C) is the confirmed shelf life but testing is ongoing.

APPLICATION

THINNER: Thinning is typically required depending on application. Use GacoFlex T5112 or GacoFlex T5120 but do not exceed 10% by volume.

MIXING INSTRUCTIONS: Use an electric or compressed-air-powered mixer that will thoroughly agitate the mix. A Jiffy-type mixer has been found to work well with the initial mixing of this coating.

POT LIFE: After two hours at 70° to 80°F (21° to 27°C) and 50% RH there will be some skinning and an increase in viscosity. Pot life can be extended to three hours by thinning up to 10% with T5112.

APPLICATION: Refer to specification from Gaco Western Sales Representative or individual job specification. Sample application specification would be to prepare concrete according to GW-1-1 General Instructions and apply GacoFlex U5677 at 1 gallon per 300 square feet, followed by GacoFlex E5320 at 1 gallon per 200 square feet. Polyurethane coating application rates will vary depending on application. Do not exceed an application rate of 1.25 gallons per 100 square feet (20 mils WFT) per coat of GacoFlex U91. Allow sufficient time between each coat for coating to fully cure.

DRY TIME 24 hours at 75°F and 50% RH. Dry time will be faster in warmer and more humid conditions, and slower in colder and dryer conditions.

CLEAN UP: Clean up application tools and equipment with GacoFlex T5112 or GacoFlex T5120.

For specific Safety and Health information please refer to the Safety Data Sheet.

