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Product Data Sheet:

LM-60

October 2007

Supersedes 02/07

GACOFLEX LM-60 LIQUID APPLIED POLYURETHANE ELASTOMERIC MEMBRANE

DESCRIPTION:	<p>GacoFlex LM-60 is a 100% solids liquid applied two component coating that cures into a water resistant polyurethane elastomeric membrane.</p> <p>LM-60H is designed for application on horizontal and low slope surfaces, at the rate of four gallons per 100 square feet (15.14 L / 9.3 m²), to yield a 1/16" (.16 cm) thick membrane. LM-60V is designed for the same application rate and yield on vertical surfaces.</p>
USAGE:	<p>Intended primarily for use as a high build waterproofing membrane over concrete, metal and plywood. GacoFlex LM-60 has ANSI NSF Standard 61 approval to line potable water storage tanks 10,000 gallons and over. When GacoFlex E-5320 is used as a primer, LM-60 has ANSI NSF Standard 61 approval to line potable water storage tanks 30,000 gallons and over. For non-potable water facilities where pH is less than 6.5 an acid resistant version of LM-60 is available for use.</p>
CONSISTENCY:	<p>LM-60H & LM-60V are thixotropic. LM-60H ranges between 25,000 to 40,000 centipoises at 75°F (24°C). LM-60V ranges between 100,000 to 160,000 centipoises at 75°F (24°C).</p>
COLOR:	<p>Black.</p>

APPLIED PRODUCT DATA

WEATHERABILITY:	<p>GacoFlex LM-60 has excellent durability up to 180°F (82°C). LM-60 must be top coated for exterior exposure, LM-60 will crack and become brittle in exterior applications without a top coat.</p>						
CHEMICAL RESISTANCE:	<p>Excellent resistance to water immersion, good salt and alkali resistance. Excellent hydrolytic stability up to 150°F (66°C). LM-60AR version has good acid resistance (refer to the LM-60AR PDS for more information).</p>						
TENSILE:	<p>ASTM D-412</p> <table><tr><td>Strength:</td><td>240 ± 10 psi (1.65 ± .07 MPa)</td></tr><tr><td>Elongation:</td><td>300% ± 20</td></tr><tr><td>Permanent Set at Break:</td><td>10% Max.</td></tr></table>	Strength:	240 ± 10 psi (1.65 ± .07 MPa)	Elongation:	300% ± 20	Permanent Set at Break:	10% Max.
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HARDNESS:	<p>ASTM D-2240</p> <table><tr><td>Shore A</td><td>50 Shore A min. @ 70°F (21°C)</td></tr></table>	Shore A	50 Shore A min. @ 70°F (21°C)				
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TEAR RESISTANCE:	<p>ASTM D-624 Die C</p> <table><tr><td>Lb./In.Min.</td><td>30 (5.4 kg(f) / cm)</td></tr></table>	Lb./In.Min.	30 (5.4 kg(f) / cm)				
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WATER ABSORPTION:	<p>ASTM D-471</p> <table><tr><td>21 Days R.T.</td><td>1% Max.</td></tr></table>	21 Days R.T.	1% Max.				
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Gaco Western has you Covered with Innovative Solutions.*

WATER VAPOR PERMEABILITY:	ASTM E-96 Procedure BW 100% R.H. Difference	0.02 Perm Inches
LOW TEMPERATURE BRITTLENESS:	ASTM D-746	Pass @ -50°F (-45°C)

PACKAGED PRODUCT DATA

PACKAGE:	Four gallon (15.14 L) kit; 3¾ gallons (14.19 L) Polyol (Part A) in 5 gallon (18.92 L) container, plus one quart (.95 L) Iso (Part B) supplied separately.	
COVERAGE:	Mil Square Feet per Gallon: Applied Coverage:	1600 (39.2 m ² / L / .02 mm) 4 Gals./100 Sq. Ft. (15.14 L / 9.3 m ²) to yield 1/16" (0.16 cm) thickness.
SOLIDS:	Volume	100%
V.O.C.:	None.	
TOXICITY:	GacoFlex LM-60 Part B is an isocyanate prepolymer. When mixed with the polyol side (Part A) use adequate ventilation, avoid breathing vapors or spray mist and prolonged or repeated contact with skin. When spraying use a particulate matter mask, an approved organic matter cartridge respirator or fresh air mask. LM-60 is certified by the National Sanitation Foundation to conform to the requirements of NSF Standard 61 - Drinking Water System Components - Health Effects for tanks 10,000 gallons and over without the use of GacoFlex E-5320 primer, and tanks 30,000 gallons and over when GacoFlex E-5320 is used as a primer.	
FLASH POINT:	ASTM D-56 (Closed Cup)	Above 200°F (93°C)
ADHESION:	Excellent adhesion to clean, dry, plywood and concrete. Primers may be required for other surfaces. See below for specific primer.	
STORAGE STABILITY:	One year at 50° to 80°F (10° to 27°C).	
THINNER:	GacoFlex T-5111 or T-5112. Normally not required, but may be thinned up to 10% by volume if necessary. GacoFlex LM-60 can be thinned when used in conjunction with potable water projects. Thinning more than 10% will exceed VOC requirements.	

APPLICATION

PRIMER:	Metals Plywood Galvanized Steel Concrete	GacoFlex E-5320 or E-5388 None Required GacoFlex E-5320, E-5388 or U-5677 GacoFlex U-5677 & E-5320 or GacoFlex E-5481
MIXING INSTRUCTIONS:	Stir the polyol side (Part A) to suspend any settled pigment. Completely empty the iso (Part B) container into the polyol side (Part A) and <u>power mix for five minutes, scraping the pail side several times.</u> Use a power mixer that will thoroughly agitate the mix (electric or compressed air powered). A Jiffy Mixer PS21 has been found to work well with LM-60H or LM-60V. Combine fifteen volumes of polyol (Part A) with one volume of iso (Part B) for quantities less than four gallons. Power mixing is mandatory for quantities over two gallons. Extreme care is required to mix in materials on the side and bottom of the mixing container.	

POT LIFE: One hour at 70° to 80°F (21°C to 27°C). Can be extended to three hours by thinning with T-5112 (up to 10%).

APPLICATION: For non-potable water applications: Trowel or squeegee as mixed. (Prime concrete surfaces with U-5677 & E-5320). Use a 5/16" x 5/16" V notched trowel or notched squeegee for application to 60 mil (1.52 mm) thickness. LM-60H is self-leveling on horizontal surfaces. LM-60V must be flat troweled to a smooth finish since it will not self level at a normal application.

Contact Gaco Western for spray application information and for more information on potable water applications.

Refer to specification for protection course or covering requirements. Use caution when backfilling or covering to avoid damage to the polyurethane membrane.