

FluoroGrip® – MX Membrane

Industrial Uses

Type

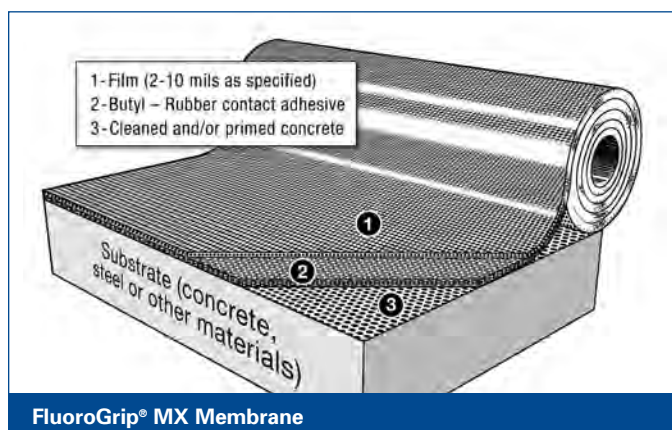
FluoroGrip® MX Membrane combines the dual advantages of a fluoropolymer film and butyl rubber adhesive, which can be applied in one simple step. Compared to traditional asphaltic membranes, the total FluoroGrip® MX Membrane provides a critical, chemical and temperature resistant barrier between acid brick or monolithics and the underlying concrete, steel or other substrates. FluoroGrip® MX Membrane protects the substrate against chemical attack by acids and alkalis that seep through monolithic sheathing, cracking overlays or acid brick joints. At the same time, it can provide vertical and horizontal waterproofing on structural foundation walls and decks, offering an extremely versatile membrane system for use in food plants, breweries, chemical plants, electronics manufacturing, and other industrial containment areas. FluoroGrip® MX Membrane improves service life under acid brick and monolithics in concrete or steel tank and floor applications, and can be used indoors and outdoors. Other applications include protection of below grade foundation walls, tunnels, concrete structures and slabs.

FluoroGrip® MX Membrane is manufactured utilizing a patented plasma surface modification science. The process creates a chemical covalent bond between the fluoropolymer film material and pressure sensitive adhesive. The bond is permanent enabling it to be used in surface protection applications where no conventional adhesive-backed Teflon® film product or asphaltic adhesive system can be used.

Uses

FluoroGrip® MX Membrane offers an excellent, cost-effective alternative to hot applied asphaltic membranes and other protective systems. The membrane's high tensile strength and flexural modulus helps isolate acid brick and monolithics from movement of the underlying substrate.

FluoroGrip® MX Membrane provides superior resistance to a wide range of aggressive chemicals and withstand the high temperatures found in manufacturing and industrial environments. The FluoroGrip® MX Membrane comes in a variety of thicknesses (32-40 mils), widths and lengths. The malleable properties allow the FluoroGrip® MX Membrane to conform to a variety of geometries and moderate surface irregularities. Special outdoor, UV stabilized systems are available.



Physical Properties

FluoroGrip P Fluoropolymer Film

General

	ASTM Method	Metric Value	Metric Units	English Value	English Units
Specific Gravity	D-4894/4895	2.16		2.16	
Flammability	UL-94	V-0		V-0	
Water Absorption (24 hrs)	D-570	<0.01	%	<0.01%	

Available Thicknesses (Film Only; Not Including Adhesive) 2 mil, 5 mil, 10 mil, 20 mil, 30 mil, 40 mil

Mechanical

	ASTM Method	Metric Value	Metric Units	English Value	English Units
Tensile Strength @ Break	D-4894/4895	31.0	MPa	4500	Psi
Elongation @ Break	D-4894/4895	400	%	400	%
Fold Endurance (M.I.T.)	D-2176	Did not break @ 10°	cycles	Did not break @ 10°	cycles

FluoroGrip® – MX Membrane

Industrial Uses

Uses (cont.)

FluoroGrip® MX Membrane offers peel and stick installation and can be easily applied. The membranes are easily cut to match the size and shape of the desired substrate to be protected, may not require primers or hazardous solvents, and the solid sheet design assures consistent coverage, even on edges, angles and corners. The MX Membrane can be optimized by incorporating a variety of fluoropolymer films (ECTFE-Halar, FEP-Teflon, etc.) in conjunction with acrylic or silicone adhesive to customize the membrane for specific applications.

Note

Refer to FluoroGrip installation manual and instruction guide for the use and installation of FluoroGrip film systems. Contact Integument technical support department for specific recommendations.

Ordering Information

Membranes are furnished standard:

Widths: 6", 12", 24", 36", 48"

Lengths: 10' increments to 150' (dependent upon thickness)

Total Membrane Thickness: 32-40 mils with 30± mils butyl adhesive

Order Film Thicknesses Of: 2, 5 or 10 mils

Physical Properties

FluoroGrip P Fluoropolymer Film

Thermal

	ASTM Method	Metric Value	Metric Units	English Value	English Units
Continuous Service Temp.*		A** S 170 250	°C	A S 338 482	°F
Specific Heat	D-4591	1.2-1.5	kJ/kg-K	0.29-0.37	Btu/(lb·°F)
Degradation Temp.*		A S 180 270		A S 356 518	°F
Coefficient of Linear Thermal Expansion	E-228	10 x 10-5	mm/mm·°C	7 x 10-5	in/in·°F
Thermal Conductivity	D-435	0.25	W/m-K	1.7	Btu-in/hr-ft²·°F

*A = Acrylic Adhesive S = Silicone Adhesive

**Optional PSA adhesive

Butyl-Rubber Adhesive

	ASTM Method	Value	Metric Value
Total Thickness	D-1000	45 mils	1.143 mm
Adhesion to Steel	PSTC-1	63 oz./in.	70.6 g/mm
Mastic Thickness	D-1000	43 mils	1.09 mm
Tensile Strength	D-1000	20 lb./in.	0.358 kg/mm
Max. Temp. – Dry – Intermittent		300°F	149°C

Disclaimer The information printed herein is furnished free of charge and is based on technical data that Integument Technologies, Inc. believes to be reliable. It is intended for use by persons having technical skill, at their own discretion and risk. The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular use conditions present no health or safety hazards. While the information contained herein is believed to be correct, Integument Technologies, Inc. makes no representation as to the accuracy of it. Since the conditions of product use are beyond our control, Integument Technologies, Inc. assumes no liability in connection with any use of this information. The evaluation of the product described herein under end-use conditions prior to specifications is essential. Nothing contained herein is to be taken as a license to operate under or as a recommendation to infringe any patents.

Warranty Integument Technologies, Inc. warrants that at the time of shipment, its products are free of defects in material and workmanship. THERE IS NO OTHER EXPRESS WARRANTY SELLER HEREBY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE INDICATED BY BUYER TO SELLER. Seller's sole obligation under this warranty shall be, upon prompt written notice by Buyer of any defect or defects, and inspection, if required by Seller, to replace FOB Seller's plant, or at Seller's option to allow credit for any defective products expressly warranted herein against defects by Seller UPON PURCHASE OF SELLER'S PRODUCT(S). IT IS EXPRESSLY AGREED UPON BY BUYER THAT THIS REMEDY OF REPLACEMENT OR CREDIT, AT SELLER'S OPTION, IS BUYER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY, IN NO EVENT SHALL SELLER BE LIABLE FOR CONSEQUENTIAL DAMAGES.