POLYVANTIS

PRODUCT DATASHEET

LEXAN™ FMR + FMR604 SHEET

DESCRIPTION

The LEXAN™ FMR family of sheet products are two side hard coated polycarbonate materials offering excellent impact resistance, optical clarity and abrasion resistance. LEXAN FMR sheet may be cold-formed or heat-drape formed to soft radii. LEXAN FMR sheet is an excellent candidate for functional parts requiring exceptional toughness and surface hardness. Typical applications include motorcycle windscreens, race car windshields, industrial conveyor covers and aircraft components if LEXAN FMR604 is selected. Available in thicknesses from 0.125" through 0.250", LEXAN FMR sheet is easily fabricated on common equipment.

Applicable to the following grades: LEXAN™ FMRxxxx sheet, LEXAN™ FMRT102 sheet, LEXAN™ FMRTHD sheet and LEXAN™ FMR604 sheet (Aircraft grade).

TYPICAL PROPERTY VALUES*

PROPERTIES	TEST METHOD	VALUE FMR	VALUE FMR604 (♦)	UNIT
PHYSICAL				
Specific Gravity	ASTM D792	1.2	1.2-1.26	-
Light Transmission (average at 0.118")	ASTM D1003	83		%
Initial Haze	ASTM D1003	<1	<1	%
Taber @ 100 cycles	ASTM D1004 (ANSI Z26.1)	10	<10	% haze
Chemical resistance	ANSI Z26.1	Pass	Pass	Pass/ Fail
Water absorption (24 hrs)	ASTM D570	0.15	0.15	%
Water absorption (Equilibrium)	@73 °F	0.35	0.35	%
Sound Transmission				
@ 0.125"	STC Rating	25	25	None
@ 0.187"	STC Rating	29	-	None
@ 0.250"	STC Rating	31	-	None
MECHANICAL				
Tensile Strength @ Yield	ASTM D638		9,500	psi
Tensile Modulus	ASTM D638	345,000	240,000	psi
Flexural Strength	ASTM D790	13,500	14,000	psi
Flexural Modulus	ASTM D790	340,000	345,000	psi
Compressive Strength	ASTM D695	12,500	-	psi
Instrumented impact 1/2" dia. Dart (gauge dependent) @73F (average at	ASTM D3763	40	40	ft-lbs
THERMAL				
Coefficient of Thermal Expansion	ASTM D696	3.75×10^{-5}	3.75×10^{-5}	in/in/°F
Heat Deflection Temperature @ 264	ASTM D648	270	280	°F
Heat Deflection Temperature @ 66 psi	ASTM D648	280		°F

PROPERTIES	TEST METHOD	VALUE FMR	VALUE FMR604 (♦)	UNIT
FLAMMABILITY				
Horizontal Burn (Flame Spread) AEB	ASTM D635	<1	<1	in
Ignition Temperature, Self				-
Smoke density	FAR 25.853 (d) Apdx F,	-	Pass at 0.040 to	Pass/ Fail
Vertical Burn (60 sec)	FAR 25.853 (a) Apdx F, Part I, (a), 1(i)	-	Pass at 0.040 to 0.125"	Pass/ Fail
Vertical Burn (12 sec)	FAR 25.853 (a) Apdx F, Part I, (a), 1(i)	-	Pass at 0.040 to 0.125"	Pass/ Fail

◆ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local POLYVANTIS representative.

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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