

FABBACK®

Fabback mirrored acrylic sheet is made with Optix® continuously processed acrylic sheet. Mirrorising is done by the process of vacuum metallising with aluminum being the primary metal evaporated. Fabback mirror acrylic sheet features the industry's toughest protective back -coating. The durability of this sheet makes it virtually scratch-resistance during fabrication.



Optix® Acrylic Mirrored Sheet Properties

Physical Properties	ASTM Test Method	Units	Values
Specific Gravity	D-792		1.19
Optical Refractive Index	D-542		1.46
Light Transmittance (Sample thickness .100")	D-1003		
Total		%	92
Haze		%	2
Sound Transmission (.125" thickness)	E 90-70 E 413	db	27
Water Absorbption	D-570	% By weight	.40
Shrinkage	D-702	% Shrinkage	<5%

Mechanical	ASTM Test Method	Units	Values
Tensile Strength Maximum	D-638	psi	10,100
Tensile Elongation Maximum		%	5.1
Modulus of Elasticity		psi	431,000
Flexural Strength Maximum	D-790	psi	14,600
Izod Molded Notch 1/2" x 2 1/2" x 1/4" bar at 73°F	D-256-56	Ft lbs/inch of notch	.4
Izod Milled Notch 1/2" x 2 1/2" x 1/4" bar at 73°F		Ft lbs/inch of notch	.28
Tensile Impact Strength	D-1822	Ft lb/in ²	20
Abrasion Resistance	D-1044	Haze, %	
0 cycles			2
10 cycles			15
50 cycles			30
200 cycles			50
Rockwell Hardness (sample thickness .250")	D-785		M-93

Thermal	ASTM Test Method	Units	Values
Maximum Recommended Continuous Service Temperature		°F	170-190
Softening Temperature		°F	210-220
Melting Temperature		°F	300-315
Deflection Temperature Load, Unannealed	D-648		
3.6°F/minute, 264 psi		°F	190
3.6°F/minute, 66 psi		°F	205
Coefficient of Thermal Expansion	D-696	Ins/in/°Fx 10 ⁻⁵	
-40°F			2.7
-20°F			2.9
0°F			3.1
20°F			3.2
40°F			3.4
60°F			3.6
80°F			3.9
100°F			4.3
Thermal Conductivity	C-177	BTU (HR)(Ft ²)(°F)/in	.9
Flammability (Burning Rate)	D-635	ins/minute	
.060"			1.019
.236"			.318
Smoke Density Rating	D-2843-77	%	
.236"			.36
Self-Ignition Temp	D-1929	°F	
.236"			833
Flame Spread Index		.375"	110
Smoke Value	E-84-86	.236"	115
Chemical			
Resistance to Stress - Critical Crazing Stress to:	ARTC modification of MIL-P-6997		
Isopropyl Alcohol		psi	900
Lacquer Thinner		psi	500
Toluene		psi	1,300