



THE WORLD'S BEST THERMAL, ACOUSTIC, PRESERVATION WINDOW INSERTS

THERMAL PERFORMANCE TESTS ATI-2305, ATI-2309

	PRIME WINDOW	PRIME WINDOW/FLEX-TITE
U-VALUE	1.15 BTU/HR FT 2/FT	0.44 BTU/HR FT 2/FT
R-VALUE	.86	2.27
CRF	5.0	68.0

REDUCTION OF HEAT TRANSFER...62%

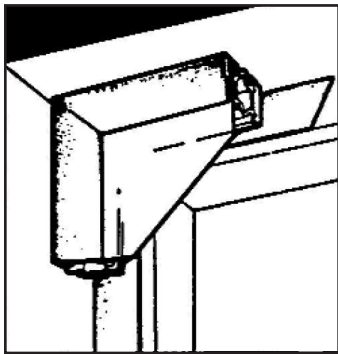
STRUCTURAL PERFORMANCE TESTS

PERFORMED W/OUT PRIME	TEST PRESSURE	MEASURED RESULT
ASTM E-283 AIR INFILTRATION	0.56 PSF 1.56 PSF	0.03 CFM/FT 0.10 CFM/FT
ASTM E-330 UNIFORM LOAD	15 PSF	NO DAMAGE

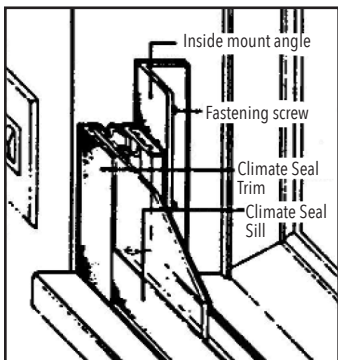
THE CLIMATE SEAL MAGNETIC INTERIOR INSULATING WINDOW SYSTEM is designed to reduce heat transfer and virtually eliminate infiltration through and around windows. The interior installation of the window is more convenient and less expensive than other methods of installing insulating windows.

DUAL DUROMETER VINYL EXTRUSIONS

Climate Seal trim, available in white, tan and brown, is a dual durometer polyvinyl chloride extrusion.



Flush-mount installation



In-jamb installation

PROPERTY	TESTING METHOD	UNIT	VALUE
MECHANICAL			
Specific Gravity	ASTM D-792		1.38
Tensile Strength	ASTM D-638	PSI	6200
Tensile Modulus	ASTM D-638	PSI	350,000
Flexural Strength	ASTM D-790	PSI	11,200
Impact Strength	ASTM D-256	ft.lb/in notch	16
Rockwell Hardness	ASTM D-785		112
THERMAL			
Deflection Temperature	ASTM D-648	degree F	160
Coefficient of Linear Thermal Expansion	ASTM-D-696	in/in/degree F	3.7 x 10 ⁻⁵
Flammability	ASTM-D-638		self-ext.
UL Rating	UL Labs		UL-94 V-0
CHEMICAL RESISTANCE			
Effect of weak acids			none
Effect of strong acids			none to sight
Effect of weak alkalies			none
Effect of strong alkalies			none
Effect of organic solvents			none
Resists alcohols, aliphatic hydrocarbons, oil; soluble or swells in keystones and esters; swells in aromatic hydrocarbons.			
Ultraviolet Resistance			good
MAGNET			
Dimension			.180" x .670"
Specific Gravity	ASTM D-792-66		3.73
Hardness Durometer D	ASTM D-2240-81		63
Tensile Strength at 73° F	ASTM D-412-80	PSI	919
Deflection Temperature At Room Temp.	ASTM D-648-72	degrees F	120
Average Shrinkback	110 degrees F	in/ft	1/64
	158 degrees F	in/ft	1/32
		in/ft	1/16
STEEL TAPE LAMINATED WITH FOAM ADHESIVE, PAINTED STEEL			
Color		White, Tan, Brown	
Width			.75" +/- .015
Thickness			.014" +/- .004
FOAM TAPE			
			1/32" white, closed-cell PVC foam, coated on both sides with a high performance, acrylic based pressure sensitive adhesive.



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CONTINUOUSLY PROCESSED, HIGH MOLECULAR WEIGHT ACRYLIC SHEET

- American National Safety Glazing Standard ANSI Z97.1
- American National Safety Institute Safety Code for Safety Glazing Motor Vehicles on Land Highways ANSI Z26.1
- Federal Motor Vehicle Safety Standard No. 205
- International Conference of Building Officials (ICBO)
- Uniform Building Code (UBC)
- UL Classifications; 94HB, HBE162, 746C, UV Light

Properties	ASTM Test Method	Units	Values
Specify Gravity	D-792		1.19
Optical Refractive Index	D-542		1.46
Light Transmittance (sample thickness .100)	D-1003		
Total Haze		%	92
		%	2
Sound Transmission (.125 thickness)	E 90-70 E 413	db	27
Water Absorption	D-570	% By Weight	.40
Shrinkage	D-702	% Shrinkage	.42 .33

Mechanical			
Specify Strength Maximum	D-638	psi	10,900
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 ¹	D-1822	Ft lb/in ₂	20
Abrasion Resistance	D-1044		
0 cycles		Haze, %	2
10 cycles		Haze, %	15
50 cycles		Haze, %	50
200 cycles		Haze, %	30
Rockwell Hardness .250 sample	D-785		M-93

- 1. Tensile Impact Strength:** Long form samples, Type "L" cut from .125 discs parallel to flow.
- 2. Abrasion Resistance:** Taper Abraser, CS-10F Wheels 1,000 Gram Load.
- 3. Sheet Thickness & Tolerance:** Plaskolite acrylic is produced to tolerances of ± 1/16" length and width on sizes 32" x 42" and smaller. Sheet sizes greater than 32" x 42" up to 30" x 60" are produced to length and width tolerances of ± 3/32". All sheet sizes greater than 30" x 60" are produced to length and width tolerances of ± 1/8". All sheet thicknesses are within industry standards of ± 10%.

Thermal			
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	181
3.6°F/minute, 66 psi		°F	200
Coefficient of Thermal Expansion	D-696	ins/in°F x	
-40°F		10-5	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	.9
Flammability (Burning Rate)	D-635	(HR)(Ft ²)(°F)/in ins/minute (.125" thickness)	1.24
Smoke Density Rating	D-2843-77	%	2.1
Self-Ignition Temp	D-1929	°F	850°F
Flame Spread Index			145
Smoke Value	E-84-86		310

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
Solvesso 100		psi	1,600

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of these products are beyond our control. We recommended that the prospective user determine the suitability of these materials and suggestions before adopting them on a commercial scale.

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