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ACRILMIR®

Acrylic Mirror Sheets

Physical Properties

Weatherability

Acrylic plastic alone has an excellent outdoor weatherability. However, the mirrorizing backcoat may develop pinholes and/or oxidation spots in exterior applications. This can occur on either the front or back surfaces exposed to the elements. Service life is not really definable and will vary widely with the severity of exposure to weather conditions.

Rigidity

ACRILMIR Acrylic Mirror sheet is a flexible material with roughly 1/20 the stiffness of the glass of the same thickness. This characteristic is generally advantageous, but due consideration must be given to deflection of unsupported areas because of the weight of the sheet or other imposed loads. The result is some image distortion which becomes more noticeable as the area of coverage increases. Distortion can be minimized but not entirely eliminated (except in relatively small panels) with increased ACRILMIR Acrylic mirror thickness and proper installation on a rigid substrate.

Temperature and Humidity

Linear dimension changes in ACRILMIR Acrylic mirror panels due to changes in ambient temperature and humidity will be greater those that will occur in other common building materials to which ACRILMIR Acrylic mirror is fitted. Install ACRILMIR Acrylic mirror at normal room temperatures to keep subsequent temperature change to a minimum. Avoid installation of ACRILMIR Acrylic mirror near sources of high heat or humidity that could warp the panels

FLAMMABILITY INFORMATION

Acrylic Mirrored sheet is a combustible thermoplastic. Precautions normally used to protect wood and other combustibles from flame and high heat, should be observed with this material. It is recommended that appropriate building codes be followed to ensure proper and safe use.

Technical property details follow>>>>>

IMPORTANT: The information contained herein are not to be taken as warranty or representation for which we assume legal responsibility nor a permission, inducement or recommendation to practice any patented invention without a license. The information is offered solely for your consideration, investigation. Users should perform their own testing and verification to determine the applicability and suitability of the information and any products for their own particular purpose.

PROPERTY	TEST METHOD	UNITS	EXTRUDED MIRROR SHEETS
<u>GENERAL</u>			
Relative density	ISO 1183		1,2
Rockwell hardness (*)	ISO 2039-2	M Scale	101
Ball Indentation hardness(*)	ISO 2039-1	MPa	
	ISO 62	%	0,2
Water Absorption	DIN 4102	%	B2
Flammability (*)	UL 94	%	HB
Flammability (*)	BS 476, Pt 7	Class	4
Flammability (*)			
<u>MECHANICAL</u>			
Tensile strength	ISO 527 (a)	MPa	70
Elongation at break	ISO 527 (a)	%	4
Flexural strength	ISO 178 (b)	MPa	107
Flexural strength to 23°	DIN53452	MPa	120
Flexural modulus	ISO 178 (b)	MPa	3030
Charpy Impact strength	ISO 179 (c)	Kjm ⁻²	10
Coefficient of elasticity	DIN53452	MPa	3000
IZOD Impact strength	ISO 180/1A (d)	Kjm ⁻²	-
IZOD Impact strength with incision	ASTMD256A	K1/m ²	1,3
Share D scale hardness	ISO 3868	-	80
<u>THERMAL</u>			
Vicat Softening Point	DIN51306	°C	>103
Thermic conductivity	DIN52612	W/m/°c	0,19
Specific heat	ASTMC351	l/g/°C	1,32
Coefficient K of thermal insulation	DIN4701	W/m ² /C°	5,3
Coefficient of thermal expansion	ASTM D696	x10 ⁻⁵ k ⁻¹	7,8
<u>ELECTRICAL</u>			
Surface resistlvtiy	IEC 93	Ω m ⁻²	>10 ¹⁴
Electrical strength	IEC 243	KV mm ⁻¹	
Dielectric constant to 50 Hz	DIN 53483		3,7
Dielectric constant to 1 MHz	DIN 53483		2,6
<u>PHYSICAL</u>			
Specific weight	DIN 53479	G/cm ²	1,20

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