

PLEXIGLAS® Sheet Resist 45

Polymethyl Methacrylate Acrylic

Evonik Industries AG

Message:

Extruded PLEXIGLAS® Resist is a highly weather-resistant sheet material from impact-modified acrylic (polymethyl methacrylate, PMMA). The grades Resist 45, -65, -75, -100 show increasing impact strength in that order. The sheets therefore offer greater break resistance than standard acrylic during transport and handling, the entire fabrication process, installation and subsequent use.

PLEXIGLAS® Resist is highly weather resistant and durable. Unlike other plastics (e. g. PC, PET, PETG) it requires no additional UV protection. PLEXIGLAS® Resist is therefore a highly versatile and absolutely reliable material for structural glazing outdoors, e. g. barrel vaults for busstops, bicycle stands, walkways, protective glazing such as general access protection, housings for machines, equipment and workplaces, vehicle glazing, e. g. windshields for motorcycles and scooters, interior glazing in buses and trains, glazing of shop fittings and counters, signage, e. g. illuminated signs, indicator panels, advertising pillars, P.O.P. displays and sales stands, glazing of vending machines, drawing equipment etc.

General Information			
Additive	Impact Modifier		
Features	Bondability		
	Cleanable		
	Durable		
	Food Contact Acceptable		
	Good Toughness		
	Good Weather Resistance		
	Impact Modified		
Uses	Machinable		
	Automotive Applications		
	Displays		
	Glazing		
	Housings		
Appearance	Outdoor Applications		
	Clear/Transparent		
	Sheet		
Forms	Thermoforming		
Processing Method			
Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm ³	ISO 1183
Water Absorption - 24 h, 23°C ¹	41.0	mg	ISO 62
Maximum Service Temperature	70	°C	
Fire Rating	B2		DIN 4102

UV Transmittance	None		
Forming Temperature - Reverse	> 80	°C	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2700	MPa	ISO 527-2/1B/1
Tensile Stress ²	60.0	MPa	ISO 527-2/5
Nominal Tensile Strain at Break	10	%	ISO 527-2/1B/50
Flexural Stress	95.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	3.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	45	kJ/m ²	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	101	°C	ISO 306/B
CLTE - Flow (0 to 50°C)	7.0E-5	cm/cm/°C	DIN 53752-A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+14	ohms	VDE 0303-3
Optical	Nominal Value	Unit	Test Method
Transmittance ³	91.0	%	DIN 5036-3
NOTE			

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| 1. | Method 1, specimen 60 x 60 x 2 mm ³ |
| 2. | Type 1B |
| 3. | Wavelength: 380 - 780 nm |

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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