

Plexiglas® Satinice df21 8N

Polymethyl Methacrylate Acrylic

Evonik Industries AG

Technical Data

Product Description

PLEXIGLAS® Satinice df21 8N, based on PLEXIGLAS® 8N, is characterized by diffuse scattering of light.

Typical properties of PLEXIGLAS® molding compound are

- good flow
- high mechanical strength, surface hardness and mar resistance
- very good weather resistance.

Special properties of PLEXIGLAS® Satinice df21 8N are

- good lightdiffusion combined with excellent light transmission.

Application:

Used for injection molding items for lighting engineering applications

Examples:

displays, backlight units

General

Features	<ul style="list-style-type: none"> • Good Flow • Good Weather Resistance 	<ul style="list-style-type: none"> • High Hardness • High Strength 	<ul style="list-style-type: none"> • Light Stabilized
Uses	<ul style="list-style-type: none"> • Clear Sheet 	<ul style="list-style-type: none"> • Displays 	<ul style="list-style-type: none"> • Lighting Diffusers
Forms	<ul style="list-style-type: none"> • Pellets 		
Processing Method	<ul style="list-style-type: none"> • Injection Molding 		
Multi-Point Data	<ul style="list-style-type: none"> • Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1) 	<ul style="list-style-type: none"> • Shear Modulus vs. Temperature (ISO 11403-1) • Viscosity vs. Shear Rate (ISO 11403-2) 	

Physical	Nominal Value Unit	Test Method
Density	1.19 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	2.50 cm ³ /10min	ISO 1133
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	3300 MPa	ISO 527-2/1
Tensile Stress (Break)	71.0 MPa	ISO 527-2/5
Tensile Strain (Break)	4.5 %	ISO 527-2/5
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	1.8 kJ/m ²	ISO 179/1
Charpy Unnotched Impact Strength (23°C)	18 kJ/m ²	ISO 179/1eU
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	103 °C	ISO 75-2/B
1.8 MPa, Unannealed	98.0 °C	ISO 75-2/A
Glass Transition Temperature	111 °C	ISO 11357-2
Vicat Softening Temperature	109 °C	ISO 306/B50
CLTE - Flow (0 to 50°C)	6.3E-5 cm/cm/°C	ISO 11359-2
Flammability	Nominal Value Unit	Test Method
Glow Wire Ignition Temperature	700 °C	IEC 60695-2-13
Fire Rating	B2	DIN 4102

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Optical	Nominal Value Unit	Test Method
Transmittance ³	87.0 %	ISO 13468-2
Additional Information	Nominal Value Unit	Test Method
Half-Value Angle	5.40 °	DIN 5036
Injection	Nominal Value Unit	
Drying Temperature	< 95.0 °C	
Drying Time	2.0 to 3.0 hr	
Processing (Melt) Temp	220 to 260 °C	
Mold Temperature	60.0 to 90.0 °C	