

Evonik Plexiglas® df21 8N Molding Compound

Categories: [Polymer](#); [Thermoplastic](#); [Acrylic \(PMMA\)](#); [Acrylic, General Purpose, Molded](#)

Material Notes: Description: PLEXIGLAS® df21 8N, PLEXIGLAS® df22 8N and PLEXIGLAS® df23 8N molding compounds based on PLEXIGLAS® 8N are characterized by diffuse scattering of light. Besides showing the familiar properties of standard PLEXIGLAS® molding compound, such as

- excellent weatherability
- high surface hardness and scratch resistance

PLEXIGLAS® df21 8N, PLEXIGLAS® df22 8N and PLEXIGLAS® df23 8N are special in that they combine good diffusing power with excellent light transmission.

PLEXIGLAS df molding compounds are the optimal choice, when a combination of high light scattering and excellent light transmission is required. Both, PLEXIGLAS df22 8N and PLEXIGLAS df23 8N are well designed for lamp covers, projected areas and similar applications. For displays and backlight units PLEXIGLAS df21 8N is the favored material.

Information provided by degussa.

Evonik Industries is the successor company to Degussa.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in ³	ISO 1183
Melt Flow	2.975 g/10 min @Load 3.80 kg, Temperature 230 °C	2.975 g/10 min @Load 8.38 lb, Temperature 446 °F	ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	71.0 MPa	10300 psi	5 mm/min; ISO 527
Elongation at Break	4.5 %	4.5 %	5 mm/min; ISO 527
Tensile Modulus	3.30 GPa	479 ksi	1 mm/min; ISO 527
Charpy Impact Unnotched	1.80 J/cm ² @Temperature 23.0 °C	8.57 ft-lb/in ² @Temperature 73.4 °F	ISO 179
Thermal Properties	Metric	English	Comments
CTE, linear	63.0 µm/m-°C @Temperature 0.000 - 50.0 °C	35.0 µin/in-°F @Temperature 32.0 - 122 °F	ASTM E831
Deflection Temperature at 0.46 MPa (66 psi)	103 °C	217 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	98.0 °C	208 °F	ISO 75
Vicat Softening Point	109 °C	228 °F	B50; ISO 306
Glass Transition Temp, Tg	111 °C	232 °F	IEC 10006
Glow Wire Test	700 °C	1290 °F	IEC 695-2
Optical Properties	Metric	English	Comments
Transmission, Visible	87 %	87 %	Transmission Factor; DIN 5036
Processing Properties	Metric	English	Comments
Processing Temperature	220 - 260 °C	428 - 500 °F	Cylinder Temperature
Melt Temperature	220 - 260 °C	428 - 500 °F	
Mold Temperature	60.0 - 90.0 °C	140 - 194 °F	
Drying Temperature	<= 95.0 °C	<= 203 °F	Predrying
Dry Time	2 - 3 hour	2 - 3 hour	Desiccant-type drier
Descriptive Properties			
Energy Half Angle		9°	IEC 695-2
Fire Rating		B2	DIN 4102

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.