

Makrolon 8325

Glass fiber reinforced grades / 20 % Glass fiber reinforced

MFR 5 g/10 min; 20 % Glass fiber reinforced; High viscosity; Easy release; Extrusion; Injection molding; Available in opaque colors only

ISO Shortname

ISO 7391-PC,GR,(,)-05-5,GF20

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Melt flow rate	300 °C / 1.2 kg	g/(10 min)	ASTM D 1238	5.0
Mold shrinkage, flow/cross to flow		in/in	ASTM D 955	0.003-0.005
Mechanical properties (23 °C/50 % r.h.)				
Tensile modulus	1 mm/min	lb/in ²	ASTM D 638	840000
Tensile elongation at break	-	%	ASTM D 638	3.0
Tensile stress at break	-	lb/in ²	ASTM D 638	13000
Izod notched impact strength	73 °F, 0.125 in	ft·lb/in	ASTM D 256	2.0
Flexural modulus	-	lb/in ²	ASTM D 790	780000
Rockwell hardness		M Scale	ASTM D 785	80
Thermal properties				
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	283
Deflection temperature under load, Unannealed	66 psi; 0.250 in	°F	ASTM D 648	289
Vicat softening temperature	50 N, 50 °C/h	°F	ASTM D 1525	298
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	V-2
UL94 Flame Class	Thickness tested: 3.0 mm	Class	UL 94	V-0
Oxygen index		%	ASTM D 2863	30
Thermal conductivity		Btu·in/(h·ft ² ·°F)	ASTM C 177	1.59
Specific heat		Btu/(lb·°F)	ASTM D 2766	0.27
Relative temperature index, mechanical with impact	Thickness tested: 1.5 mm	°C	UL 746 B	80
Relative temperature index, mechanical without impact	Thickness tested: 1.5 mm	°C	UL 746 B	80
Relative temperature index, electrical	Thickness tested: 1.5 mm	°C	UL 746 B	80
Electrical properties (23 °C/50 % r.h.)				
Dissipation factor, Tinfoil electrodes	60 Hz	-	ASTM D 150	0.0009
Dissipation factor, Tinfoil electrodes	1 MHz	-	ASTM D 150	0.01
Dielectric constant, Tinfoil electrodes	60 Hz	-	ASTM D 150	3.2
Dielectric constant, Tinfoil electrodes	1 MHz	-	ASTM D 150	3.2
Volume resistivity, Tinfoil electrodes		Ohm·m	ASTM D 257	1.0 E+14
Surface resistivity		Ohm	ASTM D 257	1.0 E+16
Dielectric strength	Short time under oil at 73 °F; 0.162 in	V/mil	ASTM D 149	880
Other properties (23 °C)				
Water absorption	73 °F; immersion to saturation	%	ASTM D 570	0.25
Water absorption	73 °F; immersion 24 h	%	ASTM D 570	0.1
Density		lb/in ³	ASTM D 792	0.049
Specific gravity		-	ASTM D 792	1.35

