Makrolon SF800

Speciality grades / Structural foam MFR 5.5 g/10 min; Structural foam; Glass fiber reinforced; Flame retardant; Easy release; Injection molding

ISO Shortname

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Melt flow rate	300 °C / 1.2 kg	g/(10 min)	ASTM D 1238	5.5
Mold shrinkage, flow/cross to flow		in/in	ASTM D 955	0.005-0.007
Mechanical properties (23 °C/50 % r.h.)				
Tensile modulus	1 mm/min	lb/in²	ASTM D 638	300000
Tensile elongation at break	-	%	ASTM D 638	5.0
Tensile stress at break	-	lb/in²	ASTM D 638	6100
Flexural modulus	-	lb/in²	ASTM D 790	340000
Flexural stress at 5 % strain		lb/in²	ASTM D 790	11000
Thermal properties				
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	261
Deflection temperature under load, Unannealed	66 psi; 0.250 in	°F	ASTM D 648	280
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D 696	2.8E-05
UL94 Flame Class	Thickness tested: 6.0 mm	Class	UL 94	V-0/5VA
Electrical properties (23 °C/50 % r.h.)				
Dissipation factor, Tinfoil electrodes	60 Hz	-	ASTM D 150	0.0031
Dissipation factor, Tinfoil electrodes	1 MHz	-	ASTM D 150	0.0022
Dielectric constant, Tinfoil electrodes	60 Hz	-	ASTM D 150	3.0
Dielectric constant, Tinfoil electrodes	1 MHz	-	ASTM D 150	2.9
Volume resistivity, Tinfoil electrodes		Ohm·m	ASTM D 257	1.0 E+14
Surface resistivity		Ohm	ASTM D 257	1.0 E+15
Dielectric strength	Short time under oil at 73 °F; 0.162 in	V/mil	ASTM D 149	> 400
Other properties (23 °C)				
Water absorption	73 °F; immersion to saturation	%	ASTM D 570	0.3
Water absorption	73 °F; immersion 24 h	%	ASTM D 570	0.15
Specific gravity, Solid		-	ASTM D 792	1.23
Specific gravity, Foamed		-	ASTM D 792	0.90
Density, Solid		lb/in³	ASTM D 792	0.044
Density, Foamed		lb/in³	ASTM D 792	0.033