Makrolon SF810

Speciality grades / Structural foam MFR 6.5 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	6.5
Mechanical properties (23 °C/50 % r.h.)				
Tensile modulus	1 mm/min	lb/in²	ASTM D 638	310000
Tensile elongation at break	-	%	ASTM D 638	4.0
Tensile stress at break	-	lb/in²	ASTM D 638	6300
Flexural modulus	-	lb/in²	ASTM D 790	405000
Flexural stress at 5 % strain		lb/in²	ASTM D 790	12000
Thermal properties				
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	273
Thermal conductivity		Btu*in/(h*ft²*°F)	ASTM C 177	0.92
Specific heat		Btu/(lb·°F)	ASTM D 2766	0.29
Electrical properties (23 °C/50 % r.h.)				
Dissipation factor, Tinfoil electrodes	60 Hz	-	ASTM D 150	0.0031
Dielectric constant, Tinfoil electrodes	60 Hz	-	ASTM D 150	3.1
Volume resistivity, Tinfoil electrodes		Ohm·m	ASTM D 257	1.0 E14
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
Specific gravity, Solid		-	ASTM D 792	1.27
Specific gravity, Foamed		-	ASTM D 792	0.95
Density, Solid		lb/in³	ASTM D 792	0.46
Density, Foamed		lb/in³	ASTM D 792	0.033