Covestro Makrolon® 1248 Polycarbonate, Impact Grade

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Impact Modified

Material Notes:

ISO 7391-PC,MP,(„)-09-9Formerly Makrolon KU1-1248MVR (300 °C/1.2 kg) 7.0 cm3/10 minFood contact qualityMedium viscosityImpact modifiedInjection molding - Melt temperature 280 - 320 °CAvailable in light colors onlyAs of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and officially adopted its new name – Covestro.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Covestro-Makrolon-1248-Polycarbonate-Impact-Grade.php

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183
	1.02 g/cc @Temperature 300 °C	0.0368 lb/in³ @Temperature 572 °F	Melt
Water Absorption	0.40 %	0.40 %	Similar to ISO 62
Moisture Absorption at Equilibrium	0.12 %	0.12 %	Similar to ISO 62
Linear Mold Shrinkage, Flow	0.0080 cm/cm	0.0080 in/in	ISO 294-4,2577
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	ISO 294-4,2577
Melt Flow	7.1 g/10 min @Load 1.20 kg, Temperature 300 °C	7.1 g/10 min @Load 2.65 lb, Temperature 572 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	61.0 MPa	8850 psi	ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	Nominal; ISO 527-1/-2
Elongation at Yield	6.0 %	6.0 %	ISO 527-1/-2
Tensile Modulus	2.25 GPa	326 ksi	ISO 527-1/-2
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
Impact	5200	5200	Puncture - maximum force (N); ISO 6603-2
	6100 @Temperature -30.0 °C	6100 @Temperature -22.0 °F	Puncture - maximum force (N); ISO 6603-2

Mechanical Properties	Metric	English	Comments
	60.0 J @Temperature -30.0 °C	44.3 ft-lb @Temperature -22.0 °F	ISO 6603-2

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
Specific Heat Capacity	1.70 J/g-°C	0.406 BTU/lb-°F	Melt
Thermal Conductivity	0.173 W/m-K	1.20 BTU-in/hr-ft²-°F	Melt
Deflection Temperature at 0.46 MPa (66 psi)	138 °C	280 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	124 °C	255 °F	ISO 75-1/-2
Vicat Softening Point	147 °C	297 °F	50°C/h 50N; ISO 306
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	IEC 60695-11-10
Oxygen Index	30 %	30 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant	3.1 @Frequency 1.00e+6 Hz	3.1 @Frequency 1.00e+6 Hz	IEC 60250
	3.2 @Frequency 100 Hz	3.2 @Frequency 100 Hz	IEC 60250
Dielectric Strength	34.0 kV/mm	864 kV/in	IEC 60243-1
Dissipation Factor	0.0012 @Frequency 100 Hz	0.0012 @Frequency 100 Hz	IEC 60250
	0.012 @Frequency 1.00e+6 Hz	0.012 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	225 V	225 V	IEC 60112

~~Electrical Properties~~ Processing Properties	~~Metric~~ Metric	~~English~~ English	~~Comments~~ Comments
Melt Temperature	280 - 320 °C	536 - 608 °F	
	300 °C	572 °F	Injection Molding; ISO 294
Mold Temperature	80.0 °C	176 °F	Injection Molding; ISO 10724
	80.0 - 120 °C	176 - 248 °F	
Ejection Temperature	130 °C	266 °F	
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	India	
	Near East/Africa	
	South and Central America	
Eff. thermal diffusivity (m^2/s)	1E-07	
Form	Pellets	
Process	Injection Molding	

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