Covestro Makrolon® Rx2435 Polycarbonate

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Molded

Material Notes:

Main characteristics:• High toughness• Good heat resistance• Glass-like transparency, optical quality• High dimensional accuracy and stabilityGrade characteristics:• Medical devices• Low viscosity, easy release• Biocompatible ISO 10993-1As 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-Rx2435-Polycarbonate.php

Physical Properties	Metric	English	Comments
Bulk Density	0.660 g/cc	0.0238 lb/in³	pellets; ISO 60
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183-1
Moisture Absorption at Equilibrium	0.12 %	0.12 %	ISO 62, 50% RH
Water Absorption at Saturation	0.30 %	0.30 %	ISO 62
Linear Mold Shrinkage, Flow	0.0065 cm/cm @Thickness 2.00 mm	0.0065 in/in @Thickness 0.0787 in	60x60x2 mm; 500 bar; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0065 cm/cm @Thickness 2.00 mm	0.0065 in/in @Thickness 0.0787 in	60x60x2 mm; 500 bar; ISO 294-4
Melt Flow	20 g/10 min @Load 1.20 kg, Temperature 300 °C	20 g/10 min @Load 2.65 lb, Temperature 572 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Puncture Resistance	5100 N @Temperature 23.0 °C	1150 lb (f) @Temperature 73.4 °F	ISO 6603-2
	6000 N @Temperature -30.0 °C	1350 lb (f) @Temperature -22.0 °F	ISO 6603-2
Ball Indentation Hardness	118 MPa	17100 psi	ISO 2039-1
Tensile Strength at Break	70.0 MPa	10200 psi	50 mm/min; ISO 527-1,-2
Tensile Strength, Yield	67.0 MPa	9720 psi	50 mm/min; ISO 527-1,-2
Elongation at Break	>= 50 %	>= 50 %	Nominal, 50 mm/min; ISO 527-1,-2
	120 %	120 %	50 mm/min; b.o. ISO 527-1,-2

Mechanical Properties	Metric	English	Comments
Elongation at Yield	6.1 %	6.1 %	50 mm/min; ISO 527-1,-2
Tensile Modulus	2.40 GPa	348 ksi	1 mm/min; ISO 527-1,-2
Flexural Strength	100 MPa	14500 psi	2 mm/min; ISO 178
Flexural Yield Strength	74.0 MPa @Strain 3.50 %	10700 psi @Strain 3.50 %	2 mm/min; ISO 178
Flexural Modulus	2.40 GPa	348 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m² @Thickness 3.20 mm, Temperature -30.0 °C	5.71 ft-lb/in² @Thickness 0.126 in, Temperature -22.0 °F	complete break; b.o. ISO 180-A
	75.0 kJ/m² @Thickness 3.20 mm, Temperature 23.0 °C	35.7 ft-lb/in² @Thickness 0.126 in, Temperature 73.4 °F	partial break; b.o. ISO 180-A
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179-1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179-1eU
	NB @Temperature -60.0 °C	NB @Temperature -76.0 °F	ISO 179-1eU
Charpy Impact, Notched	1.20 J/cm² @Thickness 3.00 mm, Temperature -30.0 °C	5.71 ft-lb/in² @Thickness 0.118 in, Temperature -22.0 °F	complete break; ISO 7391/b.o. ISO 179-1eA
	7.50 J/cm² @Thickness 3.00 mm, Temperature 23.0 °C	35.7 ft-lb/in² @Thickness 0.118 in, Temperature 73.4 °F	partial break; ISO 7391/b.o. ISO 179-1eA
Puncture Energy	55.0 J @Temperature 23.0 °C	40.6 ft-lb @Temperature 73.4 °F	ISO 6603-2
	65.0 J @Temperature -30.0 °C	47.9 ft-lb @Temperature -22.0 °F	ISO 6603-2

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	65.0 µm/m-°C @Temperature 23.0 - 55.0 °C	36.1 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1,-2
	65.0 µm/m-°C	36.1 µin/in-°F	

Thermal Properties	Metric	English	Comments
CTE, linear, Transverse to Flow	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	ISO 11359-1,-2
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft²-°F	cross-flow; ISO 8302
Hot Ball Pressure Test	132 °C	270 °F	IEC 60695-10-2
Deflection Temperature at 0.46 MPa (66 psi)	132 °C	270 °F	ISO 75-1,-2
Deflection Temperature at 1.8 MPa (264 psi)	120 °C	248 °F	ISO 75-1,-2
Vicat Softening Point	139 °C @Load 5.10 kg	282 °F @Load 11.2 lb	50°C/h; ISO 306
	140 °C @Load 5.10 kg	284 °F @Load 11.2 lb	120°C/h; ISO 306
Flash Point	480 °C	896 °F	ASTM D 1929
	550 °C	1020 °F	self ignition; ASTM D 1929

Processing Properties	Metric	English	Comments
Melt Temperature	280 °C	536 °F	Injection molding; ISO 294
Mold Temperature	80.0 °C	176 °F	Injection molding; ISO 294
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China