Makroblend® M525

Covestro - Polycarbonates - *Polycarbonate + PBT*

General Information

Product Description

(PC+PBT) Blend, impact modified, easy release, injection molding grade. Makroblend M525 offers an exceptional low-temperature impact strength, good flowability and excellent chemical resistance. Manufactured according to GMP, tested only according to ISO 10993-5 and ISO 10993-10 for contact with uncompromised skin only; for questions regarding biocompatibility we ask for an email inquiry under plastics@covestro.com.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier		
Features	• Chemical Resistant • Good Flow	• Impact Modified • Low Temperature Impact Resistance	
Uses	• Medical/Healthcare Applications		
Agency Ratings	• ISO 10993-10	• ISO 10993-5	
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.22	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	21	cm³/10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow [2]	0.70 to 0.90	%	
Across Flow : 194°F, 1 hr	0.10 to 0.20	%	
Flow [2]	0.70 to 0.90	%	
Flow : 194°F, 1 hr	0.10 to 0.20	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	290000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	7980	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	6530	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	4.5	%	ISO 527-2/50
Nominal Tensile Strain at Break (73°F)	> 50	%	ISO 527-2/50
Flexural Modulus [3] (73°F)	290000	psi	ISO 178
Flexural Stress [3] (3.5% Strain, 73°F)	9430	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength			ISO 180/A
-4°F	21	ft·lb/in²	
73°F	29	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	212	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	167	°F	ISO 75-2/A
Vicat Softening Temperature	252	°F	ISO 306/B120
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity (73°F)	> 1.0E+16	ohms·cm	IEC 60093
Comparative Tracking Index			IEC 60112

Solution A	225 V	
Solution B	100 V	

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Dry Air Dryer	230	°F
Drying Time - Dry Air Dryer	2.0 to 4.0	hr
Suggested Max Moisture	< 0.010	%
Suggested Shot Size	30 to 70	%
Rear Temperature	473 to 491	°F
Middle Temperature	482 to 500	°F
Front Temperature	491 to 509	°F
Nozzle Temperature	491 to 518	°F
Processing (Melt) Temp	482 to 518	°F
Mold Temperature	140 to 212	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes

Peripheral Screw Speed: 0.05 - 0.2 m/s
Standard Melt Temperature: 260°C
Hold Pressure (% of Injection Pressure): 50 - 75%

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 600 bar

[3] 0.079 in/min