Makroblend® UT408

Covestro - Polycarbonates - *Polycarbonate + PET*

General Information

Product Description

(PC+PET) blend, unreinforced; impact modified; high flow; injection molding grade; good impact strength; dimensional stability and chemical resistance. Suitable for some food contact applications (contact Covestro for more information).

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier		
Features	• Chemical Resistant • Food Contact Acceptable	• Good Dimensional Stability • Good Impact Resistance	• High Flow • Impact Modified
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) (270°C/5.0 kg)	20	cm³/10min	ISO 1133
Molding Shrinkage [2]			ISO 2577
Across Flow	0.60 to 0.80	%	
Flow	0.60 to 0.80	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	348000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8560	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	9280	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	5.5	%	ISO 527-2/50
Nominal Tensile Strain at Break (73°F)	100	%	ISO 527-2/50
Flexural Modulus [3] (73°F)	341000	psi	ISO 178
Flexural Stress [3]			ISO 178
3.5% Strain, 73°F	10300	psi	
73°F	12800	psi	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength [4]			ISO 180/A
-22°F	4.8	ft·lb/in²	
73°F	29	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	268	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	228	°F	ISO 75-2/A
Vicat Softening Temperature	288	°F	ISO 306/B120
CLTE - Flow (73 to 131°F)	3.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.4E-5	in/in/°F	ISO 11359-2
Thermal Conductivity [5] (73°F)	1.4	Btu·in/hr/ft²/°F	ISO 8302
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (73°F, 0.0394 in)	860	V/mil	IEC 60243-1

Relative Permittivity			IEC 60250
73°F, 100 Hz	3.20		
73°F, 1 MHz	3.10		
Dissipation Factor			IEC 60250
73°F, 100 Hz	1.3E-3		
73°F, 1 MHz	0.014		
Comparative Tracking Index (Solution A)	375	V	IEC 60112

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	500 to 536	°F
Mold Temperature	122 to 212	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes

Standard Melt Temperature: 270°C
Peripheral Screw Speed: 0.05 - 0.2 m/s
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

[4] 3 mm

[5] Across Flow