

## Makroblend® UT5207

Covestro - Polycarbonates - *Polycarbonate + PBT*

### General Information

#### Product Description

(PC+PBT)-blend, impact modified, easy release, UV-stabilized, injection molding grade. Makroblend UT5207 offers an exceptional low-temperature impact strength, good flowability and excellent chemical resistance. Suitable for metal insert molding.

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier • UV Stabilizer		
Features	• Chemical Resistant • Good Flow	• Impact Modified • Low Temperature Impact Resistance	• UV Stabilized
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.22	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	21	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow <sup>2</sup>	0.70 to 0.90	%	
Across Flow : 194°F, 1 hr	0.10 to 0.20	%	
Flow <sup>2</sup>	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 <sup>3</sup> (73°F)	290000	psi	ISO 178
Flexural Stress <sup>3</sup> (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/in <sup>2</sup>	
73°F	29	ft·lb/in <sup>2</sup>	
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
Relative Permittivity			IEC 60250
73°F, 100 Hz	3.20		
73°F, 1 MHz	3.10		
Dissipation Factor			IEC 60250
73°F, 100 Hz	3.0E-3		



73°F, 1 MHz	0.015	
Comparative Tracking Index		IEC 60112
Solution A	225 V	
Solution B	100 V	

### 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  
 Hold Pressure (% of Injection Pressure): 50 - 75%  
 Standard Melt Temperature: 260°C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 600 bar

<sup>3</sup> 0.079 in/min

