

Makroblend® UT5205

Polycarbonate + PBT

Covestro - Polycarbonates

PROSPECTOR®

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Technical Data

Product Description

(PC+PBT)-blend, impact modified, easy release, injection molding grade. Makroblend UT5205 offers an exceptional low-temperature impact strength, good flowability and excellent chemical resistance. Suitable for metal insert molding.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (Chinese (Traditional)) • Technical Datasheet (Chinese) • Technical Datasheet (English) • Technical Datasheet (German) • Technical Datasheet (Japanese)
Search for UL Yellow Card	• Covestro - Polycarbonates • Makroblend®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Impact Modifier
Features	• Chemical Resistant • Good Flow • Good Mold Release • Low Temperature Impact Resistance
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.22 g/cm ³	1.22 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	1.28 in ³ /10min	21.0 cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow ³	0.70 to 0.90 %	0.70 to 0.90 %	
Across Flow : 194°F (90°C), 1 hr	0.10 to 0.20 %	0.10 to 0.20 %	
Flow ³	0.70 to 0.90 %	0.70 to 0.90 %	
Flow : 194°F (90°C), 1 hr	0.10 to 0.20 %	0.10 to 0.20 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	290000 psi	2000 MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 73°F (23°C)	7980 psi	55.0 MPa	
Break, 73°F (23°C)	6530 psi	45.0 MPa	
Tensile Strain (Yield, 73°F (23°C))	4.5 %	4.5 %	ISO 527-2/50
Nominal Tensile Strain at Break			ISO 527-2/50
73°F (23°C)	> 50 %	> 50 %	
Flexural Modulus ⁴ (73°F (23°C))	290000 psi	2000 MPa	ISO 178
Flexural Stress ⁴ (3.5% Strain, 73°F (23°C))	9430 psi	65.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength			ISO 180/A
-4°F (-20°C)	21 ft·lb/in ²	45 kJ/m ²	
73°F (23°C)	29 ft·lb/in ²	60 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	212 °F	100 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	167 °F	75.0 °C	ISO 75-2/A
Vicat Softening Temperature	252 °F	122 °C	ISO 306/B120
CLTE			ISO 11359-2
Flow : 73 to 131°F (23 to 55°C)	5.0E-5 in/in/°F	9.0E-5 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	5.0E-5 in/in/°F	9.0E-5 cm/cm/°C	



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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity (73°F (23°C))	> 1.0E+16 ohms·cm	> 1.0E+16 ohms·cm	IEC 60093
Relative Permittivity			IEC 60250
73°F (23°C), 100 Hz	3.20	3.20	
73°F (23°C), 1 MHz	3.10	3.10	
Dissipation Factor			IEC 60250
73°F (23°C), 100 Hz	3.0E-3	3.0E-3	
73°F (23°C), 1 MHz	0.015	0.015	
Comparative Tracking Index			IEC 60112
Solution A	225 V	225 V	
Solution B	100 V	100 V	

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ 600 bar

⁴ 0.079 in/min (2.0 mm/min)



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Where to Buy

Supplier

Covestro - Polycarbonates

Leverkusen, Germany

Telephone: +49-214-6009-2000

Web: <http://www.plastics.covestro.com/>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

Web: <http://www.albis.com/>

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Availability: Canada

M. Holland Company

Telephone: 855-497-1403

Web: <http://www.mholland.com/>

Availability: Mexico, United States

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

Telephone: 800-894-4266

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Availability: Global

