

Makroblend® UT403

Polycarbonate + PET

Covestro - Polycarbonates

PROSPECTOR®

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Technical Data

Product Description

(PC+PET) blend, unreinforced; UV-stabilized; impact modified; high flow; injection molding grade. Good impact strength, dimensional stability and chemical resistance. UL746C f1 rated.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Literature ¹	<ul style="list-style-type: none"> Technical Datasheet (Chinese (Traditional)) Technical Datasheet (Chinese) Technical Datasheet (English) Technical Datasheet (German) Technical Datasheet (Japanese)
Search for UL Yellow Card	<ul style="list-style-type: none"> Covestro - Polycarbonates Makroblend®
Availability	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe Latin America North America
Additive	<ul style="list-style-type: none"> Impact Modifier UV Stabilizer
Features	<ul style="list-style-type: none"> Chemical Resistant Good Dimensional Stability Good Impact Resistance High Flow Impact Modified
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant
Processing Method	<ul style="list-style-type: none"> Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.23 g/cm ³	1.23 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (270°C/5.0 kg)	2.07 in ³ /10min	34.0 cm ³ /10min	ISO 1133
Molding Shrinkage ³			ISO 2577
Across Flow	0.60 to 0.80 %	0.60 to 0.80 %	
Flow	0.60 to 0.80 %	0.60 to 0.80 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.50 %	0.50 %	
Equilibrium, 73°F (23°C), 50% RH	0.20 %	0.20 %	
Outdoor Suitability	f1	f1	UL 746C

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	348000 psi	2400 MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 73°F (23°C)	8410 psi	58.0 MPa	
Break, 73°F (23°C)	8410 psi	58.0 MPa	
Tensile Strain (Yield, 73°F (23°C))	5.0 %	5.0 %	ISO 527-2/50
Nominal Tensile Strain at Break			ISO 527-2/50
73°F (23°C)	100 %	100 %	
Flexural Modulus ⁴ (73°F (23°C))	334000 psi	2300 MPa	ISO 178
Flexural Stress ⁴			ISO 178
3.5% Strain, 73°F (23°C)	10400 psi	72.0 MPa	
73°F (23°C)	12500 psi	86.0 MPa	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength ⁵			ISO 7391
-22°F (-30°C)	9.5 ft·lb/in ²	20 kJ/m ²	
73°F (23°C)	33 ft·lb/in ²	70 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	255 °F	124 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	208 °F	98.0 °C	ISO 75-2/A
Vicat Softening Temperature	282 °F	139 °C	ISO 306/B120



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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
CLTE			ISO 11359-2
Flow : 73 to 131°F (23 to 55°C)	3.9E-5 in/in/°F	7.0E-5 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	4.4E-5 in/in/°F	8.0E-5 cm/cm/°C	
Thermal Conductivity ⁶ (73°F (23°C))	1.4 Btu·in/hr/ft ² /°F	0.20 W/m/K	ISO 8302
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	1.0E+16 ohms	1.0E+16 ohms	IEC 60093
Volume Resistivity (73°F (23°C))	1.0E+16 ohms·cm	1.0E+16 ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
73°F (23°C), 0.0394 in (1.00 mm)	860 V/mil	34 kV/mm	
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	1.7E-3	1.7E-3	
73°F (23°C), 1 MHz	0.015	0.015	
Comparative Tracking Index (Solution A)	200 V	200 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

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)

⁵ Based on ISO 180-A, 3 mm

⁶ Cross-flow



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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

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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

