

Technical Data

Product Description

MVR (330°C/2.16kg) 8 cm³/10 min; high viscosity; easy release; UV stabilized; 'softening temperature (VST/B 120)=202 °C; injection molding - melt temperature 330 - 340°C; Lamp covers; Headlamp lenses

General

Material Status	• 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) 		
UL Yellow Card ²	• E41613-486027		
Search for UL Yellow Card	<ul style="list-style-type: none"> • Covestro - Polycarbonates • Apec® 		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• UV Stabilizer		
Features	• Good Flow	• Good Mold Release	• High Viscosity
Uses	• Automotive Applications	• Lenses	• Lighting Applications
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.13 g/cm³	1.13 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	8.0 g/10 min	8.0 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (330°C/2.16 kg)	0.488 in³/10min	8.00 cm³/10min	ISO 1133
Molding Shrinkage ⁴			ISO 294-4
Across Flow : 0.0787 in (2.00 mm)	0.90 %	0.90 %	
Flow : 0.0787 in (2.00 mm)	0.90 %	0.90 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.30 %	0.30 %	
Equilibrium, 73°F (23°C), 50% RH	0.12 %	0.12 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	355000 psi	2450 MPa	ISO 527-2/1
Tensile Stress (Yield, 73°F (23°C))	11000 psi	76.0 MPa	ISO 527-2/50
Tensile Strain (Yield, 73°F (23°C))	6.9 %	6.9 %	ISO 527-2/50
Nominal Tensile Strain at Break 73°F (23°C)	> 50 %	> 50 %	ISO 527-2/50
Flexural Modulus ⁵ (73°F (23°C))	355000 psi	2450 MPa	ISO 178
Flexural Stress ⁵ (73°F (23°C))	16000 psi	110 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness	18900 psi	130 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	376 °F	191 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	342 °F	172 °C	ISO 75-2/A
Vicat Softening Temperature	396 °F	202 °C	ISO 306/B120



Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
CLTE			ISO 11359-2
Flow : 73 to 131°F (23 to 55°C)	3.6E-5 in/in/°F	6.5E-5 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	3.6E-5 in/in/°F	6.5E-5 cm/cm/°C	
RTI Elec	302 °F	150 °C	UL 746
RTI Imp	266 °F	130 °C	UL 746
RTI Str	302 °F	150 °C	UL 746
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+17 ohms·cm	1.0E+17 ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
73°F (23°C), 0.0394 in (1.00 mm)	890 V/mil	35 kV/mm	
Relative Permittivity			IEC 60250
73°F (23°C), 100 Hz	2.90	2.90	
73°F (23°C), 1 MHz	2.80	2.80	
Dissipation Factor			IEC 60250
73°F (23°C), 100 Hz	1.0E-3	1.0E-3	
73°F (23°C), 1 MHz	9.0E-3	9.0E-3	
Comparative Tracking Index			IEC 60112
Solution A	600 V	600 V	
Solution B	100 V	100 V	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.0591 in (1.50 mm))	HB	HB	UL 94
Glow Wire Flammability Index	1470 °F	800 °C	IEC 60695-2-12
Oxygen Index ⁶	25 %	25 %	ISO 4589-2
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index ⁷	1.566	1.566	ISO 489
Transmittance (39.4 mil (1000 µm))	89.0 %	89.0 %	ISO 13468-2
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Electrolytical Corrosion (73°F (23°C))	A1	A1	IEC 60426

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 A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 60x60x2 mm

⁵ 0.079 in/min (2.0 mm/min)

⁶ Procedure A

⁷ Method A



Where to Buy

Supplier

Covestro - Polycarbonates

Leverkusen, Germany

Telephone: +49-214-6009-2000**Web:** <http://www.plastics.covestro.com/>

Distributor

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