Apec® FR1892

Polycarbonate

Covestro - Polycarbonates

PROSPECTOR®

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Technical Data

Product Description	
MVR (330°C/2.16kg) 18 cm³/10 min; easy release; 'softening temperature (VST/B 120)=183°C; easy-flowing; injection molding - melt temperature 330 - 340°C; Visors for firemen's helmets	

General			
Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (Chinese (Traditional)) • Technical Datasheet (Chinese) • Technical Datasheet (English) • Technical Datasheet (German) • Technical Datasheet (Japanese)		
UL Yellow Card [2]	• E41613-100868618		
Search for UL Yellow Card	• Covestro - Polycarbonates • Apec®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant		
Features	• Flame Retardant	• Good Flow	• Good Mold Release
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.15	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	19	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (330°C/2.16 kg)	18.0	cm³/10min	ISO 1133
Water Absorption			ISO 62
Saturation, 23°C	0.30	%	
Equilibrium, 23°C, 50% RH	0.12	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2450	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	74.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	6.6	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 50	%	ISO 527-2/50

Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	173	°C	ISO 75-2/B
1.8 MPa, Unannealed	158	°C	ISO 75-2/A
Vicat Softening Temperature	183	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow : 23 to 55°C	6.5E-5	cm/cm/°C	
Transverse : 23 to 55°C	6.5E-5	cm/cm/°C	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	35	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	2.90		
23°C, 1 MHz	2.80		

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Electrical	Nominal Value	Unit	Test Method
Dissipation Factor			IEC 60250
23°C, 100 Hz	1.0E-3		
23°C, 1 MHz	8.0E-3		
Comparative Tracking Index			IEC 60112
Solution A	225	V	
Solution B	100	V	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.5 mm	V-2		
3.0 mm	V-0		
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index [4]	1.573		ISO 489
Transmittance (1000 µm)	89.0	%	ISO 13468-2
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Electrolytical Corrosion (23°C)	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] Method A

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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/
Availability: Algeria, Austria, Belgium, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hong Kong, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom

Amco Polymers
Telephone: 800-262-6685
Web: http://www.amcopolymers.com/
Availability: North America

M. Holland Canada Company
Telephone: 905-665-1168
Web: http://www.mholland.com/
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
Web: http://polyonedistribution.com/
Availability: Global

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