

Apec® FR1892

Polycarbonate
Covestro - Polycarbonates

Message:

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 Information			
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		
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
1.50 mm	V-2		
3.00 mm	V-0		
Optical	Nominal Value	Unit	Test Method
Refractive Index ¹	1.573		ISO 489
Transmittance (1000 μm)	89.0	%	ISO 13468-2
Additional Information	Nominal Value		Test Method
Electrolytical Corrosion (23°C)	A1		IEC 60426
NOTE			
1.	Method A		

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