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Makrolon® GF9425

PC-GF20

Covestro Deutschland AG

- MVR (300 °C/1.2 kg) 5.0 cm³/10 min
- 20 % glass fiber reinforced
- flame retardant
- UL 94V-0/1.5 mm and 5VA/3.0 mm
- high viscosity
- easy release

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	5800	MPa	ISO 527
Impact Strength (Charpy), +23°C	50	kJ/m²	ISO 179/1eU
Type of failure	C	-	-
Puncture - maximum force, +23°C	900	N	ISO 6603-2
Puncture - maximum force, -30°C	900	N	ISO 6603-2
Puncture energy, +23°C	5	J	ISO 6603-2
Puncture energy, -30°C	5	J	ISO 6603-2
Flexural Modulus (23°C)	5570	MPa	ISO 178
Flexural strength	167	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	8	kJ/m²	ISO 180/1A

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	140	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	144	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	146	°C	ISO 306
Burning Behav. at 1.5 mm Nom. Thickn.	V-0	class	UL 94
Burning Behav. 5V at Thickness h	5VA	class	IEC 60695-11-20
Oxygen index	39	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.75	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature)	825	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.75	mm	-
Glow Wire Ignition Temperature)	850	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature)	850	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Electric Strength	39	kV/mm	IEC 60243-1
Comparative tracking index	200	-	IEC 60112
Volume Resistivity	3E14	Ohm*m	IEC 60093
Surface Resistivity	7E15	Ohm	IEC 60093

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1350	kg/m³	ISO 1183

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Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	300	°C	ISO 294
Injection Molding, mold temperature	110	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	2 - 3	h	-
Melt temperature	280 - 320	°C	-
Mold temperature	100	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant, Opaque

Additives
Release agent