



Makrolon® FR6002

PC

Covestro Deutschland AG

- MVR (300 °C/1.2 kg) 18 cm³/10 min
- flame retardant
- low viscosity
- easy release

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	18	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2350	MPa	ISO 527
Yield stress	64	MPa	ISO 527
Yield strain	6	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Izod), 23°C	15	kJ/m²	ISO 180/1A

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	124	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	137	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	143	°C	ISO 306
Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	0.8	mm	-
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)	850	°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)	930	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.9	-	IEC 62631-2-1
Dissipation Factor, 100Hz	8	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	88	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Electric Strength	34	kV/mm	IEC 60243-1

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1200	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

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Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	2 - 3	h	-
Processing humidity	≤0.02	%	-
Melt temperature	280 - 320	°C	-
Mold temperature	80 - 120	°C	-
Zone 1	250 - 260	°C	-
Zone 2	270 - 280	°C	-
Zone 3	280 - 290	°C	-
Nozzle temperature	290 - 300	°C	-
Back pressure	5 - 15	MPa	-

Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Black, White

Special Characteristics

Flame retardant, Transparent