Makrolon® 6485

PC — Covestro Deutschland AG

Product Texts

- MVR (300 °C/1.2 kg) 9.0 cm³/10 min
- flame retardant
- UL 94V-0/1.5 mm and 5VA/3.0 mm
- medium viscosity
- easy release

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**9**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
[C] Molding shrinkage, parallel	**0.7**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.7**	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2400**	MPa	ISO 527
[C] Yield stress	**66**	MPa	ISO 527
[C] Yield strain	**6.1**	%	ISO 527
[C] Nominal strain at break	**>50**	%	ISO 527
[C] Tensile creep modulus, 1h	**2200**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**1900**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
[C] Puncture - maximum force, +23°C	**5200**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**6000**	N	ISO 6603-2
[C] Puncture energy, +23°C	**50**	J	ISO 6603-2
[C] Puncture energy, -30°C	**55**	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	**142**	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**124**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**136**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**144**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**65**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**65**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
[C] Burning Behav. at thickness h	**V-1**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
[C] Burning Behav. 5V at thickness h	**5VA**	class	IEC 60695-11-20
Thickness tested	**3.0**	mm	-
[C] Oxygen index	**36**	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.1**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**8**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**90**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**>1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**34**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**225**	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.3**	%	Sim. to ISO 62
[C] Humidity absorption	**0.12**	%	Sim. to ISO 62
[C] Density	**1200**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**300**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

[C]: CAMPUS

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 - 100**	°C	-

Characteristics

Processing
Injection Molding, Other Extrusion

Delivery form
Pellets

Additives
Release agent

Special Characteristics
Flame retardant

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding
PREPROCESSING
Max. Water content: 0.01 - 0.02 %
Drying temperature: 120 °C
Drying time:
Circulating air drying oven (50 % fresh air) 4-8 h
Fresh air dryer (high speed dryer) 2-4 h
Dry air dryer 2-3 h

PROCESSING
Melt temperature: 280-320 °C
Mold temperature: 80-100 °C

Use open nozzle.