Makrolon® FR6040

PC-I FR(40) — Covestro Deutschland AG

Product Texts

- easy release
- UV stabilized
- flame retardant
- improved chemical resistance compared to standard Makrolon grades
- Information technology
- electrical/electronic

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**10**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
[C] Molding shrinkage, parallel	**0.8**	%	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	**2200**	MPa	ISO 527
[C] Yield stress	**55**	MPa	ISO 527
[C] Yield strain	**5.6**	%	ISO 527
Flexural modulus, 23°C	**2300**	MPa	ISO 178
Flexural strength	**90**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**65**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**50**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**60**	kJ/m²	ISO 180/1A
Izod notched impact strength	**45**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
[C] Puncture - maximum force, +23°C	**4780**	N	ISO 6603-2
[C] Puncture energy, +23°C	**45**	J	ISO 6603-2
Ball indentation hardness	**107**	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**114**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**129**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**135**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**63**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**68**	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	-
Yellow Card available	**yes**	-	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**2.0**	mm	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**>1E15**	Ohm	IEC 62631-3-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.18**	%	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

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**4**	h	-
Melt temperature	**280 - 300**	°C	-
Mold temperature	**80**	°C	-

Characteristics

Processing
Injection Molding

Additives
Release agent

Special Characteristics
Flame retardant, High impact or impact modified, U.V. stabilized or stable to weather

Applications
Electrical and Electronical

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