



Makrolon® M6011 FR

PC-I FR(40)

Covestro Deutschland AG

- medium viscosity
- impact modified
- UV stabilized
- flame retardant
- improved chemical resistance compared to standard Makrolon grades
- tested only according to ISO 10993-5 and ISO 10993-10 for contact with uncompromised skin only
- electrical/electronic
- housing parts

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	25	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2250	MPa	ISO 527
Yield stress	60	MPa	ISO 527
Yield strain	5.9	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Puncture - maximum force, +23°C	5000	N	ISO 6603-2
Puncture - maximum force, -30°C	6200	N	ISO 6603-2
Puncture energy, +23°C	51	J	ISO 6603-2
Puncture energy, -30°C	57	J	ISO 6603-2
Flexural Modulus (23°C)	2250	MPa	ISO 178
Flexural strength	89	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	70	kJ/m²	ISO 180/1A
Notched Impact Strength (Izod)	20	kJ/m²	ISO 180/1A
Temperature	-30	°C	-

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	115	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	129	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	136	°C	ISO 306
Burning Behav. at thickness h	V-1	class	UL 94
Thickness tested	1.0	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	1	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature	875	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature	850	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.36	%	Sim. to ISO 62
Humidity absorption	0.12	%	Sim. to ISO 62
Density	1190	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	300	°C	ISO 294
Injection Molding, mold temperature	90	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-

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Pre-drying - Time 4 h -

Characteristics

Processing

Injection Molding

Chemical Resistance

General Chemical Resistance

Special Characteristics

Flame retardant, Impact modified, UV stablized, Opaque

Applications

Electrical and Electronical