



Makrolon® FU4007

PC

Covestro Deutschland AG

- MVR (300 °C/1.2 kg) 6.0 cm³/10 min
- high viscosity
- UV stabilized
- easy release
- available in transparent, translucent and opaque colors
- special grade for furniture applications with demands regarding fire standards UNI 8456, 8457, 9174 and 9175

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	6	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2400	MPa	ISO 527
Yield stress	66	MPa	ISO 527
Yield strain	6.1	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Tensile Creep Modulus, 1h	2200	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	1900	MPa	ISO 899-1
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break	kJ/m²	ISO 179/1eU
Puncture - maximum force, +23°C	5600	N	ISO 6603-2
Puncture - maximum force, -30°C	6500	N	ISO 6603-2
Puncture energy, +23°C	60	J	ISO 6603-2
Puncture energy, -30°C	70	J	ISO 6603-2

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Glass Transition Temperature (10°C/min)	145	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	125	°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	144	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	65	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	65	E-6/K	ISO 11359-1/-2
Oxygen index	27	%	ISO 4589-1/-2

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.3	%	Sim. to ISO 62
Humidity absorption	0.12	%	Sim. to ISO 62
Density	1200	kg/m³	ISO 1183

Material Specific Properties	Value	Unit	Test Standard
ISO Data			
Luminous transmittance	89	%	ISO 13468-1, -2

Test specimen production	Value	Unit	Test Standard
ISO Data			
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

Characteristics

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Processing

Injection Molding

Special Characteristics

Light stabilized or stable to light

Delivery form

Pellets

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.
