



Makrolon® M820 GF

PC-GF20

Covestro Deutschland AG

- polycarbonate
- MVR (300 °C/1.2 kg) 3.0 cm³/10 min
- high viscosity
- 20 % glass fiber reinforced
- biocompatible according to many ISO 10993-1 test requirements
- suitable for medical devices

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	3	cm³/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	5800	MPa	ISO 527

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	142	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	147	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	150	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	30	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	65	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-2	class	UL 94
Burning Behav. at thickness h	V-1	class	UL 94
Thickness tested	3.0	mm	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.28	%	Sim. to ISO 62
Humidity absorption	0.11	%	Sim. to ISO 62
Density	1340	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	310	°C	ISO 294
Injection Molding, mold temperature	110	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Characteristics

Certifications

Biocompatibility ISO 10993

Applications

Medical