

VICTREX® PEEK 450GL20

PEEK-GF20

Victrex plc

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9	%	ISO 294-4, 2577
Thermal conductivity of melt	0.3	W/(m K)	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	8800	MPa	ISO 527
Stress at break	160	MPa	ISO 527
Strain at break	3.4	%	ISO 527
Flexural modulus, 23°C	8300	MPa	ISO 178
Flexural strength	250	MPa	ISO 178
Izod impact strength, +23°C	65	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	10	kJ/m ²	ISO 180/1A
Shore D hardness	85.5	-	ISO 7619-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	343	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	143	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	315	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	20	E-6/K	ISO 11359-1/-2

Electrical properties	Value	Unit	Test Standard
ISO Data			
Dissipation factor, 1MHz	50	E-4	IEC 62631-2-1
Volume resistivity	1E14	Ohm*m	IEC 62631-3-1
Electric strength	24	kV/mm	IEC 60243-1
Comparative tracking index	150	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.4	%	Sim. to ISO 62
Density	1430	kg/m ³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120 - 150	°C	-
Pre-drying - Time	3 - 5	h	-
Processing humidity	≤0.02	%	-
Mold temperature	170 - 200	°C	-
Feed temperature	≤100	°C	-
Zone 1	360	°C	-
Zone 2	365	°C	-
Zone 3	370	°C	-
Zone 4	375	°C	-
Nozzle temperature	380	°C	-

Characteristics**Processing**

Injection Molding, Other Extrusion

Certifications

Food contact, Food approval FDA 21 CFR

Delivery form

Pellets, Natural Color

Applications

Medical

Special Characteristics

Sterilizable

Chemical Resistance

General Chemical Resistance

Regional Availability

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