

VICTREX® PEEK 450FE20

(PEEK+PTFE)

Victrex plc

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.2	%	ISO 294-4, 2577
Molding shrinkage, normal	1.7	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3200	MPa	ISO 527
Yield stress	78	MPa	ISO 527
Strain at break	25	%	ISO 527
Flexural modulus, 23°C	3200	MPa	ISO 178
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	6	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	8	kJ/m ²	ISO 180/1A
Shore D hardness	81	-	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	150	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	40	E-6/K	ISO 11359-1/-2

Electrical properties	Value	Unit	Test Standard
ISO Data			
Dissipation factor, 1MHz	40	E-4	IEC 62631-2-1
Volume resistivity	1E14	Ohm*m	IEC 62631-3-1
Electric strength	26	kV/mm	IEC 60243-1
Comparative tracking index	150	-	IEC 60112

Other properties	Value	Unit	Test Standard
Density	1400	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	355	°C	-
Zone 2	360	°C	-
Zone 3	365	°C	-
Zone 4	370	°C	-
Nozzle temperature	375	°C	-

Characteristics**Processing**

Injection Molding, Other Extrusion

Delivery form

Pellets, Natural Color

Features

Tribologic Grade

Chemical Resistance

General Chemical Resistance

Certifications

Food contact, Food approval FDA 21 CFR

Regional Availability

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