

PFLUON PEEK

High performance thermoplastic, reinforced PolyEtherEtherKetone (PEEK) with additives, granules with different viscosities for variety of applications, colour natural.

Properties	Test standard	Test conditions	Unit	Wear Resistance Series							
				8200 FC30	8800 FC30	8900 FC30	8200 WF30	8800 WF45	HE610	HE611	HW003
Mechanical properties											
Tensile strength	ISO 527	Breakage, 23°C	Mpa	155	155	255	210	235	85	75	205
		Yield, 23°C	Mpa	/	/	/	/	/	/	/	/
Elogation at break	ISO 527	Breakage, 23°C	%	2,8	2,5	2,3	2,3	2.0	30	30	2,1
Bending strength	ISO 178	Breakage, 23°C	Mpa	270	270	275	330	370	/	/	
		Yield, 23°C	Mpa	/	/	/	/	/	135	130	/
Bending modulus	ISO 178	23°C	Gpa	15,5	15,5	16	15	27	3,5	3,5	20
Impact strength of simply supported beam	ISO 179/ leA	With notch	kJ.m ⁻²	6,5	5.0	4.0	8.0	8.0	7.0	7,5	7.0
		Without notch	kJ.m ⁻²	35	35	30	40	45	/	/	40
Thermal properties											
Fusing point	ISO 11357	-	°C	343	343	343	343	343	343	343	343
Glass transition	ISO 11357	Start	°C	143	143	143	143	143	143	143	143
Thermal expansion coefficient	ISO 11359	Lower than Tg along the flow direction	ppm. K ⁻¹	15	15	15	20	5	45	45	5
		Higher than Tg along the flow direction	ppm. K ⁻¹	20	20	20	15	6	120	120	6
Thermal deformation temperature	ISO 75A-f	1.8 Mpa	°C	315	315	315	320	330	145	145	328
Electrical properties											
Volume resistivity	IEC 60093	23°C, 1V	Ω· cm	/	/	/	/	/	10 ¹⁶	10 ¹⁶	/
		275°C	Ω· cm	/	/	/	/	/	10 ¹⁶	10 ¹⁶	/
Surface resistivity	IEC 61340	23°C, 100V	Ω	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ⁷	10 ⁴	/	/	10 ⁴
Others properties											
Density	ISO 1183	crystalline	g/cm ³	1.45	1.45	1.45	1.43	1,5	1.35	1,4	1,42
		Non-crystalline	g/cm ³	/	/	/	/	/	/	/	/
Shore D hardness	ISO 868	23°C	-	84	84	84	88	88	83	82	88
Molding shrinkage	ISO 294-4	Parallel to the flow direction	%	0,3	0,3	0,3	0,2	0,2	1,1	1,2	0,2
		Perpendicular to the flow direction	%	0,7	0,7	0,7	0,7	0,6	1,5	1,7	0,5

Important notes:

- 1) Processing conditions are typical of those used in our processing laboratories
- 2) Data are produced in accordance with prevailing national, international and internal standards, and should be used for material comparison. Actual property values are highly dependent on part geometry, mould configuration and processing conditions. Properties may also differ for along flow and across flow direction.

Distributed by BARplast LLC

22136 Westheimer
Parkway #329,
Katy, TX 77450
Phone: +1 713 542 9404
info@barplast.com
www.BARplast.com

The specified values are established from average values of several tests and they correspond to our today's knowledge. They are only to be used as information about our products and as help for the material selection. With these values, we do not ensure specific properties, or the suitability for certain application, therefore we do not assume any legal responsibility for an improper usage. The used test pieces have been machined from extruded semi-finished material. Since the plastics' properties depend on the manufacturing process (extrusion, injection moulding), on the dimensions of the semi finished material and on the degree of crystallinity, the actual properties of a specific product may slightly deviate from the tested ones. For information about divergent properties do not hesitate to contact us. On request we advise you regarding the most appropriate component design and the definition of material specifications more suitable to your application data. Notwithstanding, the customer bears all the responsibility for the thorough examination of suitability, efficiency, efficacy and safety of the chosen products in pharmaceutical applications, medical devices or other end uses.
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