6823 Willowbrook Park Dr.
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Ensinger Special Polymers, Inc.

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XP-98

Compression Molded

DATASHEET

PEEK Compound: 30% carbon fiber reinforced

Description	ASTM Test Method	Units	Typical Values
Mechanical Properties			
Tensile Strength	D-638	psi	18,300
Tensile Elongation	D-638	% @ break	2.2
Tensile Modulus	D-638	psi	1,400,000
Flexural Strength	D-790	psi	30,500
Flexural Modulus	D-790	psi	1,600,000
Flexural Strain	D-790	%	1.7
Compressive Strength (10% Deformation)	D-695	psi	26,000
Compressive Modulus	D-695	psi	600,000
Izod Impact Strength (Notched)	D-256	ft-lb/in	1.03
Shear Strength	D-732	psi	12,100
Hardness	D-2240	Shore D	93
Hardness	D-785	Rockwell (M)	102
Thermal Properties			
Heat Distortion Temperature	D-648	°F	> 459
Coefficient of Linear Thermal Expansion	E-831	10^{-6}/°F	15.8
Thermal Conductivity	C-177	BTU in/hr-ft^2-°F	
Continuous Use (Mechanical)	UL746B	°F	
Limiting oxygen Index	D2863	$\%O_2$	
Flammability	UL94		V-0
Melt Point	DSC	°F	649
Electrical Properties			
Dielectric Strength	D-149	KVcm	
Dielectric Constant	D-150	50Hz, 200°C	
Volume Resistivity	ANSI/ESD STM 11.12	ohm-cm	934
Surface Resistivity	D-257	ohm/sq	< 10^4
Physical Properties			
Specific Gravity	D-792	gm/cm^3	1.43
Color			Black
Filler Content		%	30
Water Absorption (RT 24h)	D-570	%	0.05
Typical Level of Crystallinity		%	35

Revision Date: 4/10/2013