Wednesday, May 13, 2026

HiFill® PEEK 4500 BK

Techmer Polymer Modifiers - *Polyetheretherketone*

Units SI

Action **Legend (Open)**

General Information

General	
Material Status	• Commercial: Active
Availability	• North America
Features	• High Viscosity
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.30	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.6	%	ASTM D955
Water Absorption (24 hr)	0.12	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	96.5	MPa	ASTM D638
Tensile Elongation (Yield)	50	%	ASTM D638
Flexural Modulus	4100	MPa	ASTM D790
Flexural Strength	172	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C, 3.18 mm)	85	J/m	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	105		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	320	°C	ASTM D648
CLTE - Flow	4.7E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	12	kV/mm	ASTM D149

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	149	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	360 to 388	°C
Middle Temperature	360 to 388	°C
Front Temperature	360 to 388	°C
Processing (Melt) Temp	360 to 382	°C
Mold Temperature	177 to 218	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	50 to 100	rpm

Notes

[1] Typical properties: these are not to be construed as specifications.

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