



Edgetek™ PK-30CF/000 EM BK

Polyetheretherketone

Key Characteristics

Product Description	
30% Carbon Fiber Reinforced PEEK Compound with High Flowability for Injection Molding Application	
General	
Material Status	<ul style="list-style-type: none"> Commercial: Active
Regional Availability	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe North America
Filler / Reinforcement	<ul style="list-style-type: none"> Carbon Fiber, 30% Filler by Weight
Features	<ul style="list-style-type: none"> General Purpose High Heat Resistance
Uses	<ul style="list-style-type: none"> Automotive Applications Consumer Applications General Purpose Industrial Applications
Appearance	<ul style="list-style-type: none"> Black
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.40	1.40	ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 2.0E-3 in/in	0.050 to 0.20 %	ASTM D955
Molding Shrinkage - Across Flow	0.014 to 0.016 in/in	1.4 to 1.6 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	0.050 %	0.050 %	ASTM D570
Water Absorption (Saturation)	0.13 %	0.13 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ² (73°F (23°C))	3.63E+6 psi	25000 MPa	ASTM D638
Tensile Strength ³			ASTM D638
Break, 73°F (23°C)	34800 psi	240 MPa	
Break, 248°F (120°C)	22500 psi	155 MPa	
Tensile Elongation ² (Break)	1.0 to 2.0 %	1.0 to 2.0 %	ASTM D638
Flexural Modulus			ASTM D790
73°F (23°C)	3.19E+6 psi	22000 MPa	
248°F (120°C)	2.76E+6 psi	19000 MPa	
Flexural Strength			ASTM D790
73°F (23°C)	53700 psi	370 MPa	
248°F (120°C)	37700 psi	260 MPa	
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.7 ft-lb/in	90 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore D, 73°F (23°C))	89	89	ISO 868

Copyright © 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	617 °F	325 °C	ASTM D648
Glass Transition Temperature	293 °F	145 °C	DSC
Melting Temperature (DSC)	649 °F	343 °C	ISO 3146
CLTE - Flow			ISO 11359-2
< 295°F (< 146°C)	3.3E-6 in/in/°F	6.0E-6 cm/cm/°C	
> 295°F (> 146°C)	4.4E-6 in/in/°F	8.0E-6 cm/cm/°C	
CLTE - Transverse			ISO 11359-2
< 295°F (< 146°C)	2.8E-5 in/in/°F	5.0E-5 cm/cm/°C	
> 295°F (> 146°C)	5.6E-5 in/in/°F	1.0E-4 cm/cm/°C	
Thermal Conductivity			ASTM E1461
140°F (60°C) ⁴	3.3 Btu·in/hr/ft ² /°F	0.48 W/m/K	
140°F (60°C) ⁵	12 Btu·in/hr/ft ² /°F	1.7 W/m/K	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+4 to 1.0E+5 ohms	1.0E+4 to 1.0E+5 ohms	ASTM D257
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.0315 in (0.800 mm))	V-0	V-0	Internal Method

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	302 °F	150 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Processing (Melt) Temp	662 to 734 °F	350 to 390 °C
Mold Temperature	338 to 374 °F	170 to 190 °C

Injection Notes

Injection Pressure: MED-HIGH
 Hold Pressure: MED-HIGH
 Screw Speed: MODERATE
 Back Pressure: LOW

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)

³ 0.20 in/min (5.0 mm/min)

⁴ through-plane

⁵ in-plane

CONTACT INFORMATION**Americas**

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions.™

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

Copyright © 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.