KetaSpire® KT-880 NL
polyetheretherketone

KetaSpire® KT-880 NL is a high flow grade of unreinforced polyetheretherketone (PEEK) supplied in non-lubricated, natural-color pellet form. KetaSpire® PEEK is produced to the highest industry standards and is characterized by a distinct combination of properties, which include excellent wear resistance, best-in-class fatigue resistance, ease of melt processing, high purity and excellent chemical resistance to organics, acids and bases.

These properties make it well-suited for applications in healthcare, transportation, electronics, chemical processing and other industrial uses. KetaSpire® KT-880 NL can be easily processed using typical injection molding processes. This resin is also available as KT-880P in a natural-color coarse powder form for compounding.

A lubricated form of the resin is available as KT-880 in either natural (NT) or black (BK 95). The lubricated version is lightly dusted with calcium stearate (0.1% level) to aid with pellet conveyance in plastication screws.

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Features	• Chemical Resistant • Ductile • Fatigue Resistant • Flame Retardant	• Good Dimensional Stability • Good Impact Resistance • High Flow • High Heat Resistance
Uses	• Aircraft Applications • Connectors • Electrical/Electronic Applications • Film • Industrial Applications	• Medical/Healthcare Applications • Oil/Gas Applications • Pump Parts • Seals
RoHS Compliance	• Contact Manufacturer	
Appearance	• Natural Color	
Forms	• Pellets [1]	
Processing Method	• Injection Molding • Machining	• Profile Extrusion

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.30		ASTM D792
Melt Mass-Flow Rate (MFR) (400°C/2.16 kg)	36	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	1.7	%	
Across Flow	1.8	%	
Water Absorption (24 hr)	0.10	%	ASTM D570

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Mechanical	Typical Value	Unit	Test method
Tensile Modulus	3700	MPa	ASTM D638
Tensile Strength	100	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	5.2	%	
Break	10 to 20	%	
Flexural Modulus	3800	MPa	ASTM D790
Flexural Strength	153	MPa	ASTM D790

Impact	Typical Value	Unit	Test method
Notched Izod Impact	53	J/m	ASTM D256
Unnotched Izod Impact	No Break		ASTM D4812

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	160	°C	
Glass Transition Temperature	147	°C	ASTM D3418
Peak Melting Temperature	343	°C	ASTM D3418
CLTE - Flow (-50 to 50°C)	5.0E-5	cm/cm/°C	ASTM E831

Additional Information
This material meets the requirements of ASTM D8033 PEEK0141.

Injection	Typical Value	Unit
Drying Temperature	150	°C
Drying Time	4.0	hr
Rear Temperature	355	°C
Middle Temperature	365	°C
Front Temperature	370	°C
Nozzle Temperature	375	°C
Mold Temperature	175 to 205	°C
Injection Rate	Fast	
Screw Compression Ratio	2.5:1.0 to 3.5:1.0	

Notes

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

[1] Pellets are non-lubricated. Order KT-880 NT (natural) or KT-880 BK 95 (black) for calcium stearate lubricated pellets.