

KetaSpire® KT-880 SL30

polyetheretherketone

KetaSpire® KT-880 SL30 is a polyetheretherketone (PEEK) compound with higher flow than KetaSpire® KT-820 SL30, making it more suitable for injection molding applications. It is designed to deliver a balance of excellent mechanical properties, wear resistance and low coefficient of friction in both dry and externally lubricated applications. The resin is formulated with a ternary anti-friction/anti-wear additive system comprised of carbon fiber, graphite, and polytetrafluoroethylene (PTFE).

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 transportation, electronics, chemical processing, and industrial uses including oil and gas exploration and production. The resin is black in color in its natural state.

KetaSpire® PEEK is produced to the highest industry standards and is characterized by a distinct combination of

General

Material Status	• Commercial: Active
Availability	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Carbon Fiber + Graphite + PTFE Lubricant
Features	<ul style="list-style-type: none"> • Chemical Resistant • Fatigue Resistant • Flame Retardant • Good Dimensional Stability • High Heat Resistance • Wear Resistant
Uses	<ul style="list-style-type: none"> • Aircraft Applications • Bearings • Bushings • Film • Gears • Industrial Applications • Profiles • Rods • Sheet • Tubing
RoHS Compliance	• Contact Manufacturer
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Physical

	Typical Value	Unit	Test method
Density / Specific Gravity	1.48		ISO 1183
Melt Mass-Flow Rate (MFR)	13	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.65 to 0.85	%	
Flow	0.10 to 0.30	%	
Water Absorption	0.027	%	ISO 62

Mechanical

	Typical Value	Unit	Test method
Tensile Modulus ¹	14500	MPa	ASTM D638
Tensile Stress			
Break	162	MPa	ISO 527-2/1A
--	155	MPa	ASTM D638

KetaSpire® KT-880 SL30

polyetheretherketone

Mechanical	Typical Value	Unit	Test method
Tensile Elongation			
Break ¹	1.9	%	ASTM D638
Break	2.0	%	ISO 527-2/1A
Flexural Modulus	11700	MPa	ASTM D790
Flexural Strength			
--	225	MPa	ASTM D790
Break	242	MPa	ISO 178
Flexural Strain at Break	2.50	%	ISO 178
Compressive Stress	200	MPa	ISO 604
Chord Modulus - 0.05% - 0.25%			
--	13.0	GPa	ISO 178
--	14.5	GPa	ISO 527-2
Impact	Typical Value	Unit	Test method
Notched Izod Impact	5.83	kJ/m ²	ISO 180
Unnotched Izod Impact	32.1	kJ/m ²	ISO 180
Hardness	Typical Value	Unit	Test method
Rockwell Hardness	117		ISO 2039-2
Shore Hardness (Shore D)	78		ISO 868
Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	293	°C	
1.8 MPa, Annealed	293	°C	
Glass Transition Temperature	147	°C	ISO 11357-2
Melting Temperature	343	°C	
Coefficient of Linear Thermal Expansion - 0 - 50°C	10.4		ISO 11359-2
Deflection Temperature	321	°C	ISO 75-2
Fill Analysis	Typical Value	Unit	Test method
Melt Viscosity (400°C, 1000 sec ⁻¹)	220	Pa·s	ASTM D3835
Melt Viscosity	374	Pa·s	ISO 11443

KetaSpire® KT-880 SL30

polyetheretherketone

Injection	Typical Value	Unit
Drying Temperature	150	°C
Drying Time	4.0	hr
Rear Temperature	366	°C
Middle Temperature	370	°C
Front Temperature	375	°C
Nozzle Temperature	380	°C
Mold Temperature	175 to 205	°C
Injection Rate	Fast	
Screw Compression Ratio	2.5:1.0 to 3.5:1.0	

Injection Notes

Back Pressure: minimum

Notes

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

¹ 5.0 mm/min



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.

© 2019 Solvay Specialty Polymers. All rights reserved.