

Solvay Specialty Polymers AvaSpire® AV-722 SL30 Polyaryletherketone (PAEK)

Category : Polymer , Thermoplastic , Polyketone , Polyaryletherketone (PAEK), Carbon Fiber Filled

Material Notes:

AV-722 SL30 is a wear resistant grade of AvaSpire® polyaryletherketone (PAEK) designed to provide low wear rates in both non-lubricated and lubricated environments. In addition to the outstanding wear resistance, the resin also offers the outstanding combination of ultra performance attributes commonly known for PEEK. These include: chemical resistance, mechanical strength and stiffness, even at elevated temperatures, as well as long-term and high-temperature thermal-oxidative stability. AV-722 SL30 is formulated with the ternary anti-friction/anti-wear additive system comprised of carbon fiber, graphite, and polytetrafluoroethylene (PTFE.) It offers wear resistance performance comparable to PEEK grades with this modifier system while being more cost-effective. Features: Flame Retardant; Good Chemical Resistance; Good Dimensional Stability; Good Wear Resistance; High Heat Resistance. Uses: Automotive Applications; Bearings; Bushings; Oil/Gas Applications; Wear Strip. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-AvaSpire-AV-722-SL30-Polyaryletherketone-PAEK.php

Physical Properties	Metric	English	Comments
Density	1.46 g/cc	0.0527 lb/in ³	ASTM D792
Water Absorption	0.030 % @Time 86400 sec	0.030 % @Time 24.0 hour	ISO 62
Viscosity	240000 cP @Shear Rate 1000 1/s, Temperature 400 Â°C	240000 cP @Shear Rate 1000 1/s, Temperature 752 Â°F	Melt Viscosity; ASTM D3835
Linear Mold Shrinkage, Flow	0.0010 - 0.0030 cm/cm @Thickness 3.18 mm	0.0010 - 0.0030 in/in @Thickness 0.125 in	
Linear Mold Shrinkage, Transverse	0.017 - 0.019 cm/cm @Thickness 3.18 mm	0.017 - 0.019 in/in @Thickness 0.125 in	ASTM D955
Melt Flow	1.9 g/10 min	1.9 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	82	82	ASTM D785
Tensile Strength	136 MPa	19700 psi	5 mm/min; ASTM D638
Tensile Strength, Yield	151 MPa	21900 psi	5 mm/min, Type 1A; ISO 527-2
Elongation at Break	2.1 %	2.1 %	Type 1A, 5 mm/min; ISO 527-2
	2.1 %	2.1 %	5 mm/min; ASTM D638

Tensile Modulus Mechanical Properties	12.4 GPa Metric	1800 ksi English	5 mm/min* ASTM D638 Comments
	15.7 GPa	2280 ksi	1 mm/min, Type 1A; ISO 527-2
Flexural Strength	209 MPa	30300 psi	ISO 178
	213 MPa	30900 psi	ASTM D790
Flexural Modulus	10.2 GPa	1480 ksi	ASTM D790
	13.9 GPa	2020 ksi	ISO 178
Compressive Strength	107 MPa	15500 psi	ASTM D695
Shear Strength	71.0 MPa	10300 psi	ASTM D732
Izod Impact, Notched	0.690 J/cm	1.29 ft-lb/in	ASTM D256
Izod Impact, Unnotched	4.50 J/cm	8.43 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	7.40 kJ/mÂ²	3.52 ft-lb/inÂ²	ISO 180
Izod Impact, Unnotched (ISO)	30.0 kJ/mÂ²	14.3 ft-lb/inÂ²	ISO 180

Thermal Properties	Metric	English	Comments
Specific Heat Capacity	1.34 J/g-Â°C	0.320 BTU/lb-Â°F	ASTM C351
	@Temperature 50.0 Â°C	@Temperature 122 Â°F	
	1.81 J/g-Â°C	0.433 BTU/lb-Â°F	ASTM C351
	@Temperature 200 Â°C	@Temperature 392 Â°F	
Thermal Conductivity	0.300 W/m-K	2.08 BTU-in/hr-ftÂ²-Â°F	ASTM C177
Melting Point	340 Â°C	644 Â°F	ASTM D3418
Deflection Temperature at 1.8 MPa (264 psi)	267 Â°C	513 Â°F	Annealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Glass Transition Temp, Tg	152 Â°C	306 Â°F	DSC

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	354 Â°C	669 Â°F	
Middle Barrel Temperature	366 Â°C	691 Â°F	
Front Barrel Temperature	371 Â°C	700 Â°F	
Nozzle Temperature	374 Â°C	705 Â°F	

Processing Properties	Metric88 Â°C	English30 Â°F	Comments
Mold Temperature	149 - 177 Â°C	300 - 351 Â°F	
Drying Temperature	149 Â°C @Time 14400 sec	300 Â°F @Time 4.00 hour	

Descriptive Properties	Value	Comments
Additive	Carbon Fiber + Graphite + PTFE Lubricant	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Black	
Form	Pellets	
Injection Rate	Fast	
Processing Technique	Injection Molding; Machining; Profile Extrusion	
Screw Compression Ratio	2.0:1.0 to 3.0:1.0	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China