

AvaSpire® AV-722 CF30

Polyaryletherketone
Solvay Specialty Polymers

Message:

AvaSpire AV-722 CF30 is a AvaSpire AV-722 30% carbon fiber reinforced brand. Compared with 30% carbon fiber reinforced PEEK, the components are more economical while maintaining the high performance advantages of carbon fiber reinforced PEEK. These useful properties include chemical resistance, fatigue resistance and long-term thermal oxidation stability. The excellent balance of AV-722 CF30 performance makes it available for a wide range of uses in all walks of life, including healthcare, transportation, electronics and chemical processing. The melt processability of AV-722 CF30 is very close to that of 30% CF-enhanced PEEK.

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 30% filler by weight		
Features	Good dimensional stability		
	Rigidity, high		
	High strength		
	Good chemical resistance		
	Heat resistance, high		
Uses	Flame retardancy		
	Gear		
	Industrial application		
	Application in Automobile Field		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
Forms	Particle		
Processing Method	Machining		
	Profile extrusion molding		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.42	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (400°C/2.16 kg)	0.80	g/10 min	ASTM D1238
Molding Shrinkage ¹			ASTM D955
Flow: 3.18mm	0.0 - 0.20	%	ASTM D955
Transverse flow: 3.18mm	1.4 - 1.6	%	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	107		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			

-- ²	22000	MPa	ASTM D638
--	26600	MPa	ISO 527-2/1A/1
Tensile Stress			
Yield	224	MPa	ISO 527-2/1A/5
-- ³	200	MPa	ASTM D638
Tensile Elongation			
Fracture ⁴	1.5	%	ASTM D638
Fracture	1.5	%	ISO 527-2/1A/5
Flexural Modulus			
--	19300	MPa	ASTM D790
--	25000	MPa	ISO 178
Flexural Strength			
--	304	MPa	ASTM D790
--	334	MPa	ISO 178
Compressive Strength	170	MPa	ASTM D695
Shear Strength	98.0	MPa	ASTM D732
Poisson's Ratio	0.44		ASTM E132
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
--	53	J/m	ASTM D256
--	8.5	kJ/m ²	ISO 180
Unnotched Izod Impact			
--	530	J/m	ASTM D4812
--	39	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	276	°C	ASTM D648
Glass Transition Temperature	150	°C	ASTM D3418
Peak Melting Temperature ⁵	340	°C	ASTM D3418
CLTE - Flow (-50 to 50°C)	6.0E-6	cm/cm/°C	ASTM E831
Specific Heat			DSC
50°C	1280	J/kg/°C	DSC
200°C	1740	J/kg/°C	DSC
Thermal Conductivity	0.34	W/m/K	ASTM C177
Fill Analysis	Nominal Value	Unit	
Melt Viscosity (400°C, 1000 sec ⁻¹)	470	Pa · s	
Injection	Nominal Value	Unit	
Drying Temperature	149	°C	
Drying Time	4.0	hr	
Rear Temperature	366	°C	
Middle Temperature	371	°C	
Front Temperature	377	°C	

Nozzle Temperature	382	°C
Mold Temperature	177 - 204	°C
Injection Rate	Fast	
Screw Compression Ratio	2.5:1.0 - 3.5:1.0	

Injection instructions

保压压力:最低值

NOTE

1.	5" x 0.5" x 0.125" bars
2.	5.0 mm/min
3.	5.0 mm/min
4.	5.0 mm/min
5.	For main components

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