

Fortron® 6450A6

Polyphenylene Sulfide

Celanese Corporation

Message:

Fortron 6450A6 is a fiberglass reinforced, mineral filled alloy that exhibits improved wear and sliding properties versus standard Fortron compounds.

General Information			
Filler / Reinforcement	Glass \Mineral		
Features	Low friction coefficient		
	Good wear resistance		
RoHS Compliance	Contact manufacturer		
Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm ³	ISO 1183
Water Absorption (Saturation, 23°C)	0.020	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	90.0	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.5	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	11000	MPa	ISO 178
Flexural Stress (23°C)	130	MPa	ISO 178
Coefficient of Friction			ASTM D1894
Dynamic ¹	0.31		ASTM D1894
Dynamic ²	0.34		ASTM D1894
Static ³	0.37		ASTM D1894
Static ⁴	0.31		ASTM D1894
With steel-dynamic ⁵	0.13		ASTM D1894
With steel-static ⁶	0.16		ASTM D1894
Wear Factor ⁷			ASTM D3702
416 Stainless : 32°C	164	10 ⁻¹⁰ in ³ · min/ft · lb · hr	ASTM D3702
C-1018 Steel : 49°C	217	10 ⁻¹⁰ in ³ · min/ft · lb · hr	ASTM D3702
C-1018 Steel : 93°C	300	10 ⁻¹⁰ in ³ · min/ft · lb · hr	ASTM D3702
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	18	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	6.0	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, not annealed	260	°C	ISO 75-2/A
8.0 MPa, not annealed	200	°C	ISO 75-2/C
Injection	Nominal Value	Unit	

Drying Temperature	130 - 140	°C
Drying Time	3.0 - 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	20.0 - 30.0	°C
Rear Temperature	290 - 300	°C
Middle Temperature	310 - 320	°C
Front Temperature	330 - 340	°C
Nozzle Temperature	310 - 330	°C
Processing (Melt) Temp	330 - 340	°C
Mold Temperature	140 - 160	°C
Injection Pressure	50.0 - 100	MPa
Injection Rate	Fast	
Holding Pressure	30.0 - 70.0	MPa
Back Pressure	0.00 - 3.00	MPa

Injection instructions

Manifold Temperature: 330 to 340°C Zone 4 Temperature: 330 to 340°C Feed Temperature: 60 to 80°C

NOTE

1. vs Fortron 1140L4, 73°F, 5 lbf, 5 in
2. vs Fortron 6165A4, 73°F, 5 lbf, 5 in
3. vs Fortron 6165A4, 73°F, 5 lbf, 5 in
4. vs Fortron 1140L4, 73°F, 5 lbf, 5 in
5. 73°F, 5 lbf, 5 in
6. 73°F, 5 lbf, 5 in
7. 16 μ-in, PV2000, 40 psi, 50ft/min

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

