

Jamplast JPPPO20GF

Polyphenylene Ether + PS

Jamplast, Inc.

Message:

JPPPO20. 20% Glass reinforced. FDA compliance (restrictions apply). Low water absorption. Hydrolitic stability. Dimensional stability. Suitable for fluid engineering applications including pump housings and impellers, valve components and others.

General Information			
Filler / Reinforcement	Glass Fiber,20% Filler by Weight		
Features	Good Dimensional Stability		
	Hydrolytically Stable		
	Low to No Water Absorption		
Uses	Housings		
	Pump Parts		
	Valves/Valve Parts		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/5.0 kg)	9.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.50	%	ASTM D955
Water Absorption (24 hr)	0.060	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	106		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	6200	MPa	ASTM D638
Tensile Strength ² (Break)	90.3	MPa	ASTM D638
Tensile Elongation ³ (Break)	2.6	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	5800	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	160	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C	96	J/m	
23°C	120	J/m	
Unnotched Izod Impact (23°C)	650	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	22.6	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

0.45 MPa, Unannealed, 3.20 mm	141	°C	
0.45 MPa, Unannealed, 6.40 mm	143	°C	
1.8 MPa, Unannealed, 3.20 mm	135	°C	
1.8 MPa, Unannealed, 6.40 mm	138	°C	
CLTE			ASTM E831
Flow : -40 to 40°C	2.9E-5	cm/cm/°C	
Transverse : -40 to 40°C	8.3E-5	cm/cm/°C	
RTI Elec	90.0	°C	UL 746
RTI Imp	90.0	°C	UL 746
RTI Str	90.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (3.20 mm, in Oil)	17	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	2.86		
60 Hz	2.86		
Dissipation Factor			ASTM D150
50 Hz	8.0E-4		
60 Hz	8.0E-4		
Arc Resistance ⁶	PLC 7		ASTM D495
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 4		UL 746
Hot-wire Ignition (HWI)	PLC 4		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.47 mm)	HB		UL 94
Oxygen Index	26	%	ASTM D2863
Injection	Nominal Value	Unit	
Drying Temperature	110 to 121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	30 to 70	%	
Rear Temperature	266 to 316	°C	
Middle Temperature	277 to 321	°C	
Front Temperature	288 to 327	°C	
Nozzle Temperature	299 to 327	°C	
Processing (Melt) Temp	299 to 327	°C	
Mold Temperature	82.2 to 110	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	20 to 100	rpm	
NOTE			
1.	5.1 mm/min		
2.	Type I, 5.1 mm/min		

3.	Type I, 5.1 mm/min
4.	1.3 mm/min
5.	1.3 mm/min
6.	Tungsten Electrode

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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

