# China PPS hGR20

### Polyphenylene Sulfide Sichuan Deyang Chemical Co., Ltd

#### Message:

PPS-hGR20 is glass reinforced PPS compound, which is filled with glass fiber based on the PPS resin. The characteristic of PPS compounds includes good mechanical properties, high creep resistance, high temperature resistance, friction resistance, flame resistance, chemical resistance, excellent electrical insulation properties, arc resistance, low mold shrinkage, easy processing good dimensional stability, and radiation resistance.

Owing to its high performance, PPS-hGR20 is widely used in electronic appliances, such as: connectors, sockets, frequency dividers, components and shells of various apparatuses and instruments. PPS can be used to make elements where high strength, high temperature resistance, electrical insulation are all-important in aviation. It is also used for precise appliance plugs, high hardness outer shells, and high temperature resistant parts in military.

Filter / Reinforcement  Glass fiber reinforced material  Features  Good dimensional stability  Low friction coefficient  High strength  Insulation  Anti-arc  Anti-gamma radiation  Workability, good  Good creep resistance  Good chemical resistance  Heat resistance, high  Low shrinkage  Flame retardancy  Uses  Protective cover  Electrical/Electronic Applications  Electrical components  Electrical appliances				
Low friction coefficient High strength Insulation Anti-arc Anti-gamma radiation Workability, good Good creep resistance Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components				
High strength Insulation Anti-arc Anti-gamma radiation Workability, good Good creep resistance Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	Good dimensional stability			
Insulation Anti-arc Anti-gamma radiation Workability, good Good creep resistance Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	Low friction coefficient			
Anti-arc Anti-gamma radiation Workability, good Good creep resistance Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	High strength			
Anti-gamma radiation  Workability, good  Good creep resistance  Good chemical resistance  Heat resistance, high  Low shrinkage  Flame retardancy  Uses  Protective cover  Electrical/Electronic Applications  Electrical components	Insulation			
Workability, good Good creep resistance Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	Anti-arc			
Good creep resistance Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Protective cover Electrical/Electronic Applications Electrical components	Anti-gamma radiation			
Good chemical resistance Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	Workability, good			
Heat resistance, high Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	Good creep resistance			
Low shrinkage Flame retardancy  Uses  Protective cover Electrical/Electronic Applications Electrical components	Good chemical resistance			
Uses Protective cover Electrical/Electronic Applications Electrical components	Heat resistance, high			
Uses Protective cover  Electrical/Electronic Applications  Electrical components	Low shrinkage			
Electrical/Electronic Applications Electrical components				
Electrical components				
Electrical components	Electrical/Electronic Applications			
Electrical appliances	Electrical components			
	Electrical appliances			
Aircraft applications	Aircraft applications			
Military application	Military application			
Connector				
Processing Method Injection molding				
Physical Nominal Value Unit Test Method				
Density 1.51 g/cm³ Internal met				
Molding Shrinkage Internal met				
Flow 0.25 % Internal met				
Transverse flow 0.75 % Internal met				
Hardness Nominal Value Unit Test Method				
Rockwell Hardness <sup>1</sup> 100 Internal met				

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	120	MPa	Internal method
Tensile Elongation (Break)	1.8	%	Internal method
Flexural Modulus	11500	MPa	Internal method
Flexural Strength	172	MPa	Internal method
Compressive Strength	137	MPa	Internal method
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	11	kJ/m²	Internal method
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	264	°C	Internal method
Melting Temperature	281	°C	Internal method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	6.9E+15	ohms	Internal method
Volume Resistivity	1.4E+17	ohms·cm	Internal method
Dielectric Strength	17	kV/mm	Internal method
Dielectric Constant (1 MHz)	4.00		Internal method
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		Internal method
Injection	Nominal Value	Unit	
Drying Temperature	110 - 140	°C	
Drying Time	3.0 - 5.0	hr	
Rear Temperature	270 - 290	°C	
Middle Temperature	300 - 320	°C	
Front Temperature	300 - 320	°C	
Nozzle Temperature	290 - 320	°C	
Processing (Melt) Temp	160	°C	
Mold Temperature	100 - 150	°C	
Injection Pressure	50.0 - 100	MPa	
Back Pressure	0.100 - 1.00	MPa	
Screw Speed	40 - 100	rpm	
Injection instructions			
Processing time: 2 to 8hr			
NOTE			
1.	HR		

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