PrimoSpire® PR-250

Self-Reinforced Polyphenylene

Solvay Specialty Polymers

Message:

PrimoSpire PR -250 resin is injection grade self-reinforced polystyrene (SRP). PrimoSpire SRP is an ultra-high performance amorphous polymer that can be melt processed. The unique properties of the material are mainly derived from its inherently rigid rod-like structure. Compared with other thermoplastics, PrimoSpire SRP has outstanding mechanical properties, scratch resistance, excellent solvent resistance and excellent low temperature performance without fiber reinforcement. In addition, PrimoSpire SRP has high thermal stability, is non-flammable, has higher specific strength compared with many conventional structural materials, and is easy to machine. PrimoSpire SRP's excellent mechanical, chemical, thermal and physical properties make it the preferred material for various products, including aircraft sub-structures, semiconductor components, bushings, bearings, gears, light vehicle suspension systems, medical tubes and other equipment.
black: PrimoSpire PR-250 BK 931

General Information	
Features	Rigidity, high High strength Scratch resistance Good chemical resistance ductility Flame retardancy
Uses	Semiconductor molding compound Films Gear Electrical/Electronic Applications Aircraft applications Connector Shell Medical/nursing supplies
RoHS Compliance	RoHS compliance
Appearance	Black Natural color
Forms	Powder Particle
Processing Method	Film extrusion Wire & Cable Extrusion Machining Profile extrusion molding Compression molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Water Absorption (24 hr)	0.10	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (Class B)	32		ASTM E18
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	5520	MPa	ASTM D638
Tensile Strength	152	MPa	ASTM D638
Tensile Elongation (Break)	10	%	ASTM D638
Flexural Modulus	6000	MPa	ASTM D790
Flexural Strength	234	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	59	J/m	ASTM D256
Unnotched Izod Impact	1600	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	151	°C	ASTM D648
Glass Transition Temperature	168	°C	ASTM E1356
CLTE - Flow	3.1E-5	cm/cm/°C	ASTM E831
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 7.0E+15	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.12		ASTM D150
1 kHz	3.11		ASTM D150
1 MHz	3.01		ASTM D150
Dissipation Factor			ASTM D150
60 Hz	7.0E-3		ASTM D150
1 kHz	7.0E-3		ASTM D150
1 MHz	7.0E-3		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	55	%	ASTM D2863
Additional Information			
PrimoSpire PR-250 BK 931的性能根据优先产品批次测得;最终规格尚未确定.			
Injection	**Nominal Value**	**Unit**	
Drying Temperature	149	°C	
Drying Time	3.0	hr	
Rear Temperature	310	°C	
Middle Temperature	324	°C	

Front Temperature	335	°C
Nozzle Temperature	341	°C
Processing (Melt) Temp	343 - 349	°C
Mold Temperature	129 - 146	°C
Injection Rate	Slow-Moderate	

Recommended distributors for this material

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