

Edistir® RK 451G

High Impact Polystyrene

Versalis S.p.A.

Message:

UL94 V-0, polybromobiphenylether (PBBE) free, flame retarded, high impact polystyrene.

This grade combines medium flow, heat resistance and good light stability for injection moulding of technical parts.

Designation: Thermoplastics ISO 2897-PS-I,MF,O88-06-04-18

Applications

Printers and copiers, ventilators, TV back covers, business machines, monitor cabinets.

General Information			
Additive	Flame Retardant		
Features	Flame Retardant		
	High Heat Resistance		
	High Impact Resistance		
	Light Stabilized		
	Medium Flow		
Uses	Business Equipment		
	Computer Components		
	Electrical/Electronic Applications		
	Printer		
	Protective Coverings		
UL File Number	E83071		
Appearance	Colors Available		
	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm ³	ISO 1183
Apparent Density	0.70	g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	4.0	g/10 min	ISO 1133
Molding Shrinkage	0.40 to 0.70	%	Internal Method
Water Absorption (23°C, 24 hr)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1950	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	23.0	MPa	
Break	22.0	MPa	

Tensile Strain (Break)	50	%	ISO 527-2/50
Flexural Stress ¹	31.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C, 3.20 mm	80	J/m	ISO 180/4A
23°C	6.0	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	85.0	°C	ASTM D648
Vicat Softening Temperature			
--	98.0	°C	ISO 306/A50
--	90.0	°C	ISO 306/B50
CLTE - Flow	9.0E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.17	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.5E+15	ohms	IEC 60093
Volume Resistivity	> 7.0E+15	ohms·cm	IEC 60093
Electric Strength	26	kV/mm	IEC 60243-1
Dielectric Constant (50 Hz)	2.50		IEC 60250
Dissipation Factor (50 Hz)	4.0E-4		IEC 60250
Comparative Tracking Index (Solution A)	400	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm, All Colors	V-0		
4.00 mm, All Colors, foamed at density 0.96 to 1.2 g/cm ³	5VA		
6.00 mm, All Colors, foamed at density 0.86 to 1.16 g/cm ³	5VA		
Glow Wire Ignition Temperature (1.60 mm)	850	°C	IEC 60695-2-13
Additional Information	Nominal Value		
Designation	Thermoplastics ISO 2897-PS-I,M,088-06-04-18		
Injection	Nominal Value	Unit	
Drying Temperature	70.0	°C	
Drying Time	2.0	hr	
Processing (Melt) Temp	190 to 230	°C	
Mold Temperature	20.0 to 60.0	°C	
NOTE			
1.	2.0 mm/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

