

DuPont™ Crastin® SK643FR BK851

THERMOPLASTIC POLYESTER RESIN

Product Information

Crastin® SK643FR BK851 is a 20% Glass Reinforced, Flame Retardant, Polybutylene Terephthalate

General information			
	Value	Unit	Test Standard
Resin Identification	PBT-GF20FR(17)	-	ISO 1043
Part Marking Code	PBT-GF20FR(17)	-	ISO 11469
Rheological properties			
	Value	Unit	Test Standard
Moulding shrinkage, parallel	0.5	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.2	%	ISO 294-4, 2577
Moulding shrinkage, parallel, annealed	0.6	%	ISO 294-4
Moulding shrinkage, normal, annealed	1.45	%	ISO 294-4
Mechanical properties			
	Value	Unit	Test Standard
Tensile Modulus	8300	MPa	ISO 527-1/-2
Stress at break	110	MPa	ISO 527-1/-2
Strain at break	2.8	%	ISO 527-1/-2
Flexural Strength	165	MPa	ISO 178
Poisson's ratio	0.34	-	ISO 527-1/-2
Charpy impact strength, 23°C	50	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	7.6	kJ/m ²	ISO 179/1eA
Thermal properties			
	Value	Unit	Test Standard
Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	200	°C	ISO 75-1/-2
RTI, electrical			
0.75mm	140	°C	UL 746B
1.5mm	140	°C	
3mm	140	°C	
6mm	140	°C	
RTI, impact			
0.75mm	130	°C	UL 746B
1.5mm	130	°C	
3mm	130	°C	
6mm	130	°C	
RTI, strength			
0.75mm	140	°C	UL 746B
1.5mm	140	°C	
3mm	140	°C	
6mm	140	°C	
Flammability			
	Value	Unit	Test Standard
Burning Behav. at 1.5mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	yes	-	UL 94
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
UL recognition	yes	-	UL 94
Oxygen index	32	%	ISO 4589-1/-2
FMVSS Class	DNI	-	ISO 3795 (FMVSS 302)
Electrical properties			
	Value	Unit	Test Standard
Comparative tracking index	225	-	IEC 60112
Other properties			
	Value	Unit	Test Standard
Humidity absorption, 2mm	0.13	%	Sim. to ISO 62
Water absorption, 2mm	0.32	%	Sim. to ISO 62
Density	1630	kg/m ³	ISO 1183

To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

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Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	≥120	°C	-
Drying Time, Dehumidified Dryer	2 - 4	h	-
Processing Moisture Content	≤0.04	%	-
Melt Temperature Optimum	250	°C	-
Min. melt temperature	240	°C	-
Max. melt temperature	260	°C	-
Mold Temperature Optimum	80	°C	-
Min. mould temperature	30	°C	-
Max. mould temperature	130	°C	-
Hold pressure range	≥60	MPa	-
Hold pressure time	3	s/mm	-
Back pressure	As low as possible		-
Ejection temperature	170	°C	-

Characteristics

Regional Availability

- North America
- Europe

- Asia Pacific
- South and Central America

- Near East/Africa
- Global

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 4mm (Hytrel® measured at 2 mm), IEC Electrical properties measured at 2mm, all ASTM properties measured at 3.2mm, and test temperatures are 23°C unless otherwise stated.

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