

DuPont™ Crastin® FR684NH WT173 (Preliminary Data)

THERMOPLASTIC POLYESTER RESIN

Product Information

Crastin® FR684NH WT173 is a 25% Glass Reinforced, Flame Retardant, Non-Halogenated, Polybutylene Terephthalate

General information	Value	Unit	Test Standard
Resin Identification	PBT-GF25FR(40)	-	ISO 1043
Part Marking Code	>PBT-GF25FR(40)<	-	ISO 11469
Rheological properties	Value	Unit	Test Standard
Moulding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.1	%	ISO 294-4, 2577
Flow length	300	mm	-
Flow length - pressure	80 ⁽¹⁾	MPa	-
Flow length - width/thickness	2	mm	-
Melt viscosity, @ 1000 sec-1, 250 °C	150	Pa s	ISO 11443
1: Melt Temperature 260 °C OT: One time tested			
Mechanical properties	Value	Unit	Test Standard
Tensile Modulus	8600	MPa	ISO 527-1/-2
Stress at break	76	MPa	ISO 527-1/-2
Strain at break	1.7	%	ISO 527-1/-2
Charpy notched impact strength, 23 °C	4.2	kJ/m ²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10 °C/min	223	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	205	°C	ISO 75-1/-2
RTI, electrical			UL 746B
0.75mm	130	°C	
1.5mm	130	°C	
3mm	130	°C	
RTI, impact			UL 746B
0.75mm	125	°C	
1.5mm	125	°C	
3mm	125	°C	
RTI, strength			UL 746B
0.75mm	140	°C	
1.5mm	140	°C	
3mm	140	°C	
Flammability	Value	Unit	Test Standard
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	IEC 60695-11-10
Glow Wire Flammability Index			IEC 60695-2-1/2
0.75mm	960	°C	
1.5mm	960	°C	
3mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-1/3
0.75mm	750	°C	
1.5mm	750	°C	
3mm	800	°C	
FMVSS Class	DNI	-	ISO 3795 (FMVSS 302)
Electrical properties	Value	Unit	Test Standard
Electric strength	44	kV/mm	IEC 60243-1
Comparative tracking index	500	-	IEC 60112
Other properties	Value	Unit	Test Standard
Density	1520	kg/m ³	ISO 1183
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	120	°C	-

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

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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

Processing	• Injection Moulding		
Delivery form	• Pellets		
Additives	• Flame retardant	• Non-halogenated/Red phosphorous free flame retardant	
Regional Availability	• North America	• Asia Pacific	• Near East/Africa
	• Europe	• South and Central America	• Global

Processing Texts

Injection molding

[Moulding datasheets](#)

[Moulding guide](#)

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 4.0mm (Hytrel® measured at 2 mm), IEC Electrical properties measured at 2.0mm, all ASTM properties measured at 3.2mm, and test temperatures are 23°C unless otherwise stated.

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