

DuPont™ Crastin® FR684NH1 WT173 (Developmental Data)

THERMOPLASTIC POLYESTER RESIN

Product Information

Crastin® FR684NH1 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	0.5	%	ISO 294-4, 2577 DS
Moulding shrinkage, normal	1.2	%	ISO 294-4, 2577 DS

DS: Derived from similar grade

Mechanical properties	Value	Unit	Test Standard
Tensile Modulus	8400	MPa	ISO 527-1/-2
Stress at break	68	MPa	ISO 527-1/-2
Strain at break	2.2	%	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

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

Electrical properties	Value	Unit	Test Standard
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1 DS
Surface resistivity	>1E15	Ohm	IEC 62631-3-2 DS
Comparative tracking index	600	-	IEC 60112

DS: Derived from similar grade

Other properties	Value	Unit	Test Standard
Humidity absorption, 2mm	0.1	%	Sim. to ISO 62 DS
Water absorption, 2mm	0.25	%	Sim. to ISO 62 DS
Density	1520	kg/m ³	ISO 1183 DS

DS: Derived from similar grade

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

Processing	• Injection Moulding
Delivery form	• Pellets
Additives	• Flame retardant
	• Non-halogenated/Red phosphorous free flame



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Regional Availability	retardant
• North America	• Asia Pacific
• Europe	• South and Central America
	• Near East/Africa
	• Global

Processing Texts

Injection molding

[Moulding datasheets](#)

[Moulding guide](#)

The above data are for the developmental sample and are subject to change as the product is scaled up.

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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