

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.

North America

Tel: +1 302 999-4592

Toll-Free (USA): 800 441-0575

Asia Pacific

Tel: +81 3 5521 8600

Europe/Middle East/Africa

Tel: +41 22 717 51 11



DuPont™ Crastin® FR684NH WT173 (Preliminary Data)

THERMOPLASTIC POLYESTER RESIN

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 • Europe	• Asia Pacific • South and Central America	• Near East/Africa • 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.

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents. Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer representative and read Medical Caution H-50103-5.

Copyright © 2017 DuPont or its affiliates. All Rights Reserved. The DuPont Oval Logo, DuPont™, The miracles of science™ and all products denoted with ® or ™ are registered trademarks or trademarks of E.I. du Pont de Nemours and Company or its affiliates.

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

North America

Tel: +1 302 999-4592

Toll-Free (USA): 800 441-0575

Asia Pacific

Tel: +81 3 5521 8600

Europe/Middle East/Africa

Tel: +41 22 717 51 11

