

DuPont™ Zytel® HTNFE170023 BK168 (Preliminary Data)

HIGH PERFORMANCE POLYAMIDE RESIN

Product Information

Zytel® HTNFE170023 BK168 is a 57% glass reinforced, flame retardant, high performance polyamide with low warpage characteristics. It is also a PPA resin and uses a non-halogenated flame retardant.

Rheological properties		dry / cond	Unit	Test Standard
Moulding shrinkage, parallel		0.1 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal		0.1 / -	%	ISO 294-4, 2577
Mechanical properties		dry / cond	Unit	Test Standard
Tensile Modulus		23000 / -	MPa	ISO 527-1/-2
Stress at break		240 / -	MPa	ISO 527-1/-2
Strain at break		1.7 / -	%	ISO 527-1/-2
Flexural Modulus		21400 / -	MPa	ISO 178
Flexural Strength		370 / -	MPa	ISO 178
Charpy impact strength				ISO 179/1eU
23°C		61 / -	kJ/m²	
-40°C		60 / -	kJ/m²	
Charpy notched impact strength				ISO 179/1eA
23°C		21 / -	kJ/m²	
-40°C		18 / -	kJ/m²	
Poisson's ratio		0.33 / -	-	-
Thermal properties		dry / cond	Unit	Test Standard
Melting temperature, 10°C/min		283 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa		242 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel		10 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion				ISO 11359-1/-2
normal		30 / *	E-6/K	
Normal, -40-23°C		24 / *	E-6/K	
Normal, 55-160°C		49 / *	E-6/K	
Parallel, -40-23°C		8 / *	E-6/K	
Parallel, 55-160°C		9 / *	E-6/K	
Flammability		dry / cond	Unit	Test Standard
Burning Behav. at thickness h		V-0 / *	class	IEC 60695-11-10
Thickness tested		0.4 / *	mm	IEC 60695-11-10
UL recognition		yes / *	-	UL 94
Electrical properties		dry / cond	Unit	Test Standard
Volume resistivity		>1E13 / -	Ohm*m	IEC 62631-3-1
Electric strength		31 / -	kV/mm	IEC 60243-1
Other properties		dry / cond	Unit	Test Standard
Density		1730 / -	kg/m³	ISO 1183
Injection		Value	Unit	Test Standard
Drying Recommended		yes	-	-
Drying Temperature**		≥100	°C	-
Drying Time, Dehumidified Dryer		6 - 8	h	-
Processing Moisture Content		≤0.1	%	-
Min. melt temperature		300	°C	-
Max. melt temperature		315	°C	-
Min. mould temperature		100	°C	-
Max. mould temperature		130	°C	-

Characteristics

Additives

• Flame retardant

• Non-halogenated/Red phosphorous free flame retardant

Revised: 2019-05-21

Page: 1 of 2

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



Copyright 2017 DuPont. The DuPont Oval Logo is a trademark or registered trademark of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved.

DuPont™ Zytel® HTNFE170023 BK168 (Preliminary Data)

HIGH PERFORMANCE POLYAMIDE RESIN

Processing Texts

Injection molding

For molding machine components, use corrosion resistant and wear resistant steel. For details please contact your DuPont representative. Limit the residence time of the resin in the machine. Use proper protective equipment and adequate ventilation.

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 © 2019 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.

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

