

DuPont Performance Polymers Hytel® 4068FG TPC-ET (Unverified Data**)

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyester, TP , Polyester Thermoplastic Elastomer

Material Notes:

Hytel® 4068FG is a high performance thermoplastic polyester elastomer with food compliance specificity. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Hytel-4068FG-TPC-ET-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.11 g/cc	0.0401 lb/in ³	ISO 1183
Water Absorption	0.30 %	0.30 %	Equilibrium 50%RH; ISO 62
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.70 %	0.70 %	Saturation, immersed; ISO 62
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Flow	0.0090 cm/cm	0.0090 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Melt Flow	8.5 g/10 min	8.5 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 220 °C	@Load 4.76 lb, Temperature 428 °F	
Melt Index of Compound	9.0 g/10 min	9.0 g/10 min	cm ³ /10 min; ISO 1133
	@Load 2.16 kg, Temperature 220 °C	@Load 4.76 lb, Temperature 428 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	<= 37	<= 37	ISO 868
	<= 40	<= 40	ASTM D2240
	33	33	ISO 868
Tensile Strength at Break	28.0 MPa	4060 psi	ISO 527 (1BA bar)
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	3.50 MPa	508 psi	ISO 527 (1BA bar)
	@Strain 10.0 %, Temperature 23.0 °C	@Strain 10.0 %, Temperature 73.4 °F	
	>= 300 %	>= 300 %	

Elongation at Break Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 527 (1BA bar) Comments
	650 % @Temperature 23.0 °C	650 % @Temperature 73.4 °F	ISO 527 (1BA bar)
Tensile Modulus	0.0450 GPa @Temperature 23.0 °C	6.53 ksi @Temperature 73.4 °F	ISO 527
Flexural Modulus	0.0280 GPa @Temperature 100 °C	4.06 ksi @Temperature 212 °F	ISO 178
	0.0470 GPa @Temperature 23.0 °C	6.82 ksi @Temperature 73.4 °F	ISO 178
	0.172 GPa @Temperature -40.0 °C	24.9 ksi @Temperature -40.0 °F	ISO 178
Izod Impact, Notched (ISO)	NB @Temperature -40.0 °C	NB @Temperature -40.0 °F	ISO 180/1A
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 180/1A
Charpy Impact Unnotched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eA
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eA
Tensile Impact Strength	145 kJ/m² @Temperature 23.0 °C	69.0 ft-lb/in² @Temperature 73.4 °F	ISO 8256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	500 µm/m-°C @Temperature 23.0 - 55.0 °C	278 µin/in-°F @Temperature 73.4 - 131 °F	ASTM E 831
	500 µm/m-°C @Temperature 23.0 -	278 µin/in-°F @Temperature 73.4 -	ISO 11359-1/-2

Thermal Properties	55.0 °C Metric	131 °F English	Comments
CTE, linear, Transverse to Flow	230 µm/m-°C	128 µin/in-°F	ASTM E 831
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
	230 µm/m-°C	128 µin/in-°F	ISO 11359-1/-2
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
Melting Point	193 °C	379 °F	10°C/min; ISO 11357-1/-3

Processing Properties	Metric	English	Comments
Melt Temperature	215 °C	419 °F	Optimum; Extrusion
	205 - 230 °C	401 - 446 °F	Extrusion
	225 °C	437 °F	Optimum; Injection Molding
Mold Temperature	220 - 250 °C	428 - 482 °F	Injection Molding
	30.0 - 40.0 °C	86.0 - 104 °F	Injection Molding
	40.0 °C	104 °F	optimum; Injection Molding
Drying Temperature	100 °C	212 °F	Extrusion
	100 °C	212 °F	Injection Molding
Dry Time	2.00 - 3.00 hour	2.00 - 3.00 hour	Extrusion
	2.00 - 3.00 hour	2.00 - 3.00 hour	Injection Molding
Moisture Content	<= 0.050 %	<= 0.050 %	Extrusion
	<= 0.080 %	<= 0.080 %	Injection Molding

Descriptive Properties	Value	Comments
Appearance	Natural Color	
Drying Recommended	Yes	
Forms	Pellets	
Generic	Thermoplastic Copolyester Elastomer (TPC-ET)	
Material Status	Preliminary Data	
Part Marking Code	>TPC-ET<	ISO 11469
Processing Method	Extrusion	

Descriptive Properties	Value on Molding	Comments
Product Category	Food Contact Resins	
	High Performance Hytrel® Resins	
Region Available - Global	Yes	
Resin Identification	TPC-ET	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Food Applications, Non-specific	

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