

DuPont Performance Polymers Crastin® LW9020 NC010 PBT+ASA (Unverified Data**)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , PBT + ASA Blend, Glass Fiber Reinforced

Material Notes:

20% Glass Reinforced Polybutylene Terephthalate Blend with Low Warpage Characteristics Crastin LW9020 NC010 is a 20% glass fiber reinforced polybutylene terephthalate blend for injection molding. It has improved surface aesthetics excellent dimensional information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Crastin-LW9020-NC010-PBTASA-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in ³	
	1.35 g/cc	0.0488 lb/in ³	ISO 1183
Water Absorption	0.78 %	0.78 %	Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	0.260 %	0.260 %	Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Viscosity	64000 cP	64000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 260 °C	@Shear Rate 5000 1/s, Temperature 500 °F	
	72000 cP	72000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 250 °C	@Shear Rate 5000 1/s, Temperature 482 °F	
	83000 cP	83000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 240 °C	@Shear Rate 5000 1/s, Temperature 464 °F	
	253000 cP	253000 cP	ISO 11403-1 -2
	@Shear Rate 500 1/s, Temperature 260 °C	@Shear Rate 500 1/s, Temperature 500 °F	
292000 cP	292000 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 250 °C	@Shear Rate 500 1/s, Temperature 482 °F		
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ISO 294-4 2577

Physical Properties	Metric	English	Comments
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Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	110 MPa	16000 psi	ISO 527-1/-2
Tensile Stress	2.32 MPa	336 psi	ISO 11403-1 -2
	@Strain 0.250 %, Temperature 160 °C	@Strain 0.250 %, Temperature 320 °F	
	9.90 MPa	1440 psi	ISO 11403-1 -2
	@Strain 1.50 %, Temperature 160 °C	@Strain 1.50 %, Temperature 320 °F	
	13.2 MPa	1910 psi	ISO 11403-1 -2
	@Strain 3.20 %, Temperature 160 °C	@Strain 3.20 %, Temperature 320 °F	
	15.6 MPa	2260 psi	ISO 11403-1 -2
	@Strain 0.250 %, Temperature 40.0 °C	@Strain 0.250 %, Temperature 104 °F	
	17.5 MPa	2540 psi	ISO 11403-1 -2
	@Strain 0.250 %, Temperature 23.0 °C	@Strain 0.250 %, Temperature 73.4 °F	
	18.9 MPa	2740 psi	ISO 11403-1 -2
	@Strain 0.250 %, Temperature 0.000 °C	@Strain 0.250 %, Temperature 32.0 °F	
	19.3 MPa	2800 psi	ISO 11403-1 -2
	@Strain 0.250 %, Temperature -20.0 °C	@Strain 0.250 %, Temperature -4.00 °F	
	19.8 MPa	2870 psi	ISO 11403-1 -2
	@Strain 0.250 %, Temperature -40.0 °C	@Strain 0.250 %, Temperature -40.0 °F	
	75.3 MPa	10900 psi	ISO 11403-1 -2
	@Strain 1.50 %, Temperature 40.0 °C	@Strain 1.50 %, Temperature 104 °F	
	87.7 MPa	12700 psi	ISO 11403-1 -2
	@Strain 1.50 %, Temperature 23.0 °C	@Strain 1.50 %, Temperature 73.4 °F	
	94.9 MPa	13800 psi	ISO 11403-1 -2
	@Strain 3.20 %, Temperature 40.0 °C	@Strain 3.20 %, Temperature 104 °F	

Mechanical Properties	97.7 MPa Metric	14200 psi English	Comments
	@Strain 1.50 %, Temperature 0.000 °C	@Strain 1.50 %, Temperature 32.0 °F	ISO 11403-1 -2
	103 MPa	14900 psi	
	@Strain 1.50 %, Temperature -20.0 °C	@Strain 1.50 %, Temperature -4.00 °F	ISO 11403-1 -2
	106 MPa	15400 psi	
	@Strain 1.50 %, Temperature -40.0 °C	@Strain 1.50 %, Temperature -40.0 °F	ISO 11403-1 -2
	120 MPa	17400 psi	
	@Strain 3.20 %, Temperature 23.0 °C	@Strain 3.20 %, Temperature 73.4 °F	ISO 11403-1 -2
	10.0 MPa	1450 psi	
	@Strain 0.207 %, Time 3.60e+6 sec	@Strain 0.207 %, Time 1000 hour	isochronous; ISO 11403-1 -2
	10.0 MPa	1450 psi	
	@Strain 0.150 %, Time 3600 sec	@Strain 0.150 %, Time 1.00 hour	isochronous; ISO 11403-1 -2
	10.0 MPa	1450 psi	
	@Strain 0.169 %, Time 36000 sec	@Strain 0.169 %, Time 10.0 hour	isochronous; ISO 11403-1 -2
	20.0 MPa	2900 psi	
	@Strain 0.380 %, Time 360000 sec	@Strain 0.380 %, Time 100 hour	isochronous; ISO 11403-1 -2
	50.0 MPa	7250 psi	
	@Strain 0.875 %, Time 36000 sec	@Strain 0.875 %, Time 10.0 hour	isochronous; ISO 11403-1 -2
	60.0 MPa	8700 psi	
	@Strain 1.22 %, Time 360000 sec	@Strain 1.22 %, Time 100 hour	isochronous; ISO 11403-1 -2
	60.0 MPa	8700 psi	
	@Strain 1.35 %, Time 3.60e+6 sec	@Strain 1.35 %, Time 1000 hour	isochronous; ISO 11403-1 -2
	70.0 MPa	10200 psi	
	@Time 3600 sec, Strain 1.15 %	@Time 1.00 hour, Strain 1.15 %	isochronous; ISO 11403-1 -2
Elongation at Break	2.9 %	2.9 %	ISO 527-1/-2

Tensile Modulus Mechanical Properties	7.00 GPa Metric	1020 ksi English	ISO 527-1/-2 Comments
	1.124 GPa @Temperature 145 °C	163.0 ksi @Temperature 293 °F	Dynamic; ISO 11403-1 -2
	4.482 GPa @Temperature 85.0 °C	650.1 ksi @Temperature 185 °F	Dynamic; ISO 11403-1 -2
	6.026 GPa @Temperature 55.0 °C	874.0 ksi @Temperature 131 °F	Dynamic; ISO 11403-1 -2
	7.344 GPa @Temperature 15.0 °C	1065 ksi @Temperature 59.0 °F	Dynamic; ISO 11403-1 -2
	7.634 GPa @Temperature -10.0 °C	1107 ksi @Temperature 14.0 °F	Dynamic; ISO 11403-1 -2
	7.75 GPa @Temperature -35.0 °C	1120 ksi @Temperature -31.0 °F	Dynamic; ISO 11403-1 -2
	7.787 GPa @Temperature -50.0 °C	1129 ksi @Temperature -58.0 °F	Dynamic; ISO 11403-1 -2
Flexural Strength	170 MPa	24700 psi	ISO 178
Flexural Modulus	6.30 GPa	914 ksi	ISO 178
Shear Modulus	0.210 GPa @Temperature 160 °C	30.5 ksi @Temperature 320 °F	Dynamic; ISO 11403-1 -2
	0.640 GPa @Temperature 120 °C	92.8 ksi @Temperature 248 °F	Dynamic; ISO 11403-1 -2
	1.15 GPa @Temperature 70.0 °C	167 ksi @Temperature 158 °F	Dynamic; ISO 11403-1 -2
	1.81 GPa @Temperature 20.0 °C	263 ksi @Temperature 68.0 °F	Dynamic; ISO 11403-1 -2
	1.92 GPa @Temperature -20.0 °C	278 ksi @Temperature -4.00 °F	Dynamic; ISO 11403-1 -2
	2.14 GPa @Temperature -50.0 °C	310 ksi @Temperature -58.0 °F	Dynamic; ISO 11403-1 -2
Secant Modulus	2.39 GPa @Strain 1.50 %,	346 ksi @Strain 1.50 %,	ISO 11403-1 -2

Mechanical Properties	Temperature 100 °C Metric	Temperature 212 °F English	Comments
	3.276 GPa	475.2 ksi	
	@Strain 0.250 %, Temperature 100 °C	@Strain 0.250 %, Temperature 212 °F	ISO 11403-1 -2
	3.42 GPa	496 ksi	
	@Strain 1.50 %, Temperature 80.0 °C	@Strain 1.50 %, Temperature 176 °F	ISO 11403-1 -2
	4.56 GPa	661 ksi	
	@Strain 0.250 %, Temperature 80.0 °C	@Strain 0.250 %, Temperature 176 °F	ISO 11403-1 -2
	5.02 GPa	728 ksi	
	@Strain 1.50 %, Temperature 40.0 °C	@Strain 1.50 %, Temperature 104 °F	ISO 11403-1 -2
	5.85 GPa	848 ksi	
	@Strain 1.50 %, Temperature 23.0 °C	@Strain 1.50 %, Temperature 73.4 °F	ISO 11403-1 -2
	6.24 GPa	905 ksi	
	@Strain 0.250 %, Temperature 40.0 °C	@Strain 0.250 %, Temperature 104 °F	ISO 11403-1 -2
	6.51 GPa	945 ksi	
	@Strain 1.50 %, Temperature 0.000 °C	@Strain 1.50 %, Temperature 32.0 °F	ISO 11403-1 -2
	6.87 GPa	996 ksi	
	@Strain 1.50 %, Temperature -20.0 °C	@Strain 1.50 %, Temperature -4.00 °F	ISO 11403-1 -2
	7.00 GPa	1020 ksi	
	@Strain 0.250 %, Temperature 23.0 °C	@Strain 0.250 %, Temperature 73.4 °F	ISO 11403-1 -2
	7.07 GPa	1020 ksi	
	@Strain 1.50 %, Temperature -40.0 °C	@Strain 1.50 %, Temperature -40.0 °F	ISO 11403-1 -2
	7.56 GPa	1100 ksi	
	@Strain 0.250 %, Temperature 0.000 °C	@Strain 0.250 %, Temperature 32.0 °F	ISO 11403-1 -2

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