DuPont Performance Polymers Zytel® PLUS PLS90G30DR BK099 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 30% Glass Fiber Filled

Material Notes:

Zytel® PLS90G30DR BK099 is a 30% glass reinforced PA66 nylon resin having superior resistance to hot engine coolant. It is particularly suitable for automotive Radiator End Tanks and other parts in contact with engine coolant.Information provided by DuPont Performance Polymers

Order this product through the following link:
http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-PLUS-PLS90G30DR-BK099-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in³	DAM; ISO 1183
Filler Content	30 %	30 %	DAM
Water Absorption	1.9 % @Temperature 23.0 °C	1.9 % @Temperature 73.4 °F	Equilibrium 50%RH; DAM; ISO 62, Similar to
	6.0 % @Temperature 23.0 °C	6.0 % @Temperature 73.4 °F	Saturation, immersed; DAM; ISO 62, Similar to
Linear Mold Shrinkage, Flow	0.0020 cm/cm @Thickness 2.00 mm	0.0020 in/in @Thickness 0.0787 in	DAM; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0090 cm/cm @Thickness 2.00 mm	0.0090 in/in @Thickness 0.0787 in	DAM; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	137 MPa @Temperature 23.0 °C	19900 psi @Temperature 73.4 °F	50%RH; ISO 527
	193 MPa @Temperature 23.0 °C	28000 psi @Temperature 73.4 °F	DAM; ISO 527
Tensile Stress	0.640 MPa @Strain 0.000 %, Temperature 200 °C	92.8 psi @Strain 0.000 %, Temperature 392 °F	DAM; ISO 11403-1/-2
	0.760 MPa @Strain 0.000 %, Temperature 220 °C	110 psi @Strain 0.000 %, Temperature 428 °F	DAM; ISO 11403-1/-2
	0.810 MPa	117 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 0.000 %, Temperature 150 °C	@Strain 0.000 %, Temperature 302 °F	50%RH; ISO 11403-1/-2
	0.820 MPa @Strain 0.000 %, Temperature 180 °C	119 psi @Strain 0.000 %, Temperature 356 °F	DAM; ISO 11403-1/-2
	0.910 MPa @Strain 0.000 %, Temperature 150 °C	132 psi @Strain 0.000 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	0.940 MPa @Strain 0.000 %, Temperature 120 °C	136 psi @Strain 0.000 %, Temperature 248 °F	50%RH; ISO 11403-1/-2
	1.02 MPa @Strain 0.000 %, Temperature 120 °C	148 psi @Strain 0.000 %, Temperature 248 °F	DAM; ISO 11403-1/-2
	1.12 MPa @Strain 0.000 %, Temperature 90.0 °C	162 psi @Strain 0.000 %, Temperature 194 °F	50%RH; ISO 11403-1/-2
	1.13 MPa @Strain 0.000 %, Temperature 90.0 °C	164 psi @Strain 0.000 %, Temperature 194 °F	DAM; ISO 11403-1/-2
	1.17 MPa @Strain 0.000 %, Temperature 60.0 °C	170 psi @Strain 0.000 %, Temperature 140 °F	50%RH; ISO 11403-1/-2
	1.17 MPa @Strain 0.000 %, Temperature 40.0 °C	170 psi @Strain 0.000 %, Temperature 104 °F	50%RH; ISO 11403-1/-2
	1.35 MPa @Strain 0.000 %, Temperature 23.0 °C	196 psi @Strain 0.000 %, Temperature 73.4 °F	50%RH; ISO 11403-1/-2
	1.45 MPa @Strain 0.000 %, Temperature 0.000 °C	210 psi @Strain 0.000 %, Temperature 32.0 °F	DAM; ISO 11403-1/-2
	1.46 MPa @Strain 0.000 %, Temperature 60.0 °C	212 psi @Strain 0.000 %, Temperature 140 °F	DAM; ISO 11403-1/-2
	1.66 MPa @Strain 0.000 %, Temperature 0.000 °C	241 psi @Strain 0.000 %, Temperature 32.0 °F	50%RH; ISO 11403-1/-2

Mechanical Properties	Metric	English	Comments
	@Strain 0.000 %, Temperature 23.0 °C	@Strain 0.000 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	1.82 MPa @Strain 0.000 %, Temperature 40.0 °C	264 psi @Strain 0.000 %, Temperature 104 °F	DAM; ISO 11403-1/-2
	1.86 MPa @Strain 0.000 %, Temperature -20.0 °C	270 psi @Strain 0.000 %, Temperature -4.00 °F	50%RH; ISO 11403-1/-2
	1.88 MPa @Strain 0.000 %, Temperature -20.0 °C	273 psi @Strain 0.000 %, Temperature -4.00 °F	DAM; ISO 11403-1/-2
	2.50 MPa @Strain 0.0500 %, Temperature -20.0 °C	363 psi @Strain 0.0500 %, Temperature -4.00 °F	50%RH; ISO 11403-1/-2
	2.64 MPa @Strain 0.0500 %, Temperature -20.0 °C	383 psi @Strain 0.0500 %, Temperature -4.00 °F	DAM; ISO 11403-1/-2
	2.93 MPa @Strain 0.0500 %, Temperature 0.000 °C	425 psi @Strain 0.0500 %, Temperature 32.0 °F	DAM; ISO 11403-1/-2
	3.66 MPa @Strain 0.0800 %, Temperature 220 °C	531 psi @Strain 0.0800 %, Temperature 428 °F	DAM; ISO 11403-1/-2
	3.69 MPa @Strain 0.0800 %, Temperature 150 °C	535 psi @Strain 0.0800 %, Temperature 302 °F	50%RH; ISO 11403-1/-2
	3.74 MPa @Strain 0.0800 %, Temperature 120 °C	542 psi @Strain 0.0800 %, Temperature 248 °F	50%RH; ISO 11403-1/-2
	3.76 MPa @Strain 0.100 %, Temperature 200 °C	545 psi @Strain 0.100 %, Temperature 392 °F	DAM; ISO 11403-1/-2
	4.01 MPa @Strain 0.0900 %, Temperature 180 °C	582 psi @Strain 0.0900 %, Temperature 356 °F	DAM; ISO 11403-1/-2
	4.17 MPa	605 psi	DAM; ISO 11403-1/-2

Mechanical Properties	Metric	English	Comments
	@Strain 0.0800 %, Temperature 150 °C	@Strain 0.0800 %, Temperature 302 °F	
	4.17 MPa @Strain 0.0700 %, Temperature 90.0 °C	605 psi @Strain 0.0700 %, Temperature 194 °F	50%RH; ISO 11403-1/-2
	4.27 MPa @Strain 0.0700 %, Temperature 120 °C	619 psi @Strain 0.0700 %, Temperature 248 °F	DAM; ISO 11403-1/-2
	4.45 MPa @Strain 0.0700 %, Temperature 60.0 °C	645 psi @Strain 0.0700 %, Temperature 140 °F	50%RH; ISO 11403-1/-2
	4.67 MPa @Strain 0.0600 %, Temperature 40.0 °C	677 psi @Strain 0.0600 %, Temperature 104 °F	50%RH; ISO 11403-1/-2
	4.71 MPa @Strain 0.0800 %, Temperature 90.0 °C	683 psi @Strain 0.0800 %, Temperature 194 °F	DAM; ISO 11403-1/-2
	4.97 MPa @Strain 0.0500 %, Temperature 23.0 °C	721 psi @Strain 0.0500 %, Temperature 73.4 °F	50%RH; ISO 11403-1/-2
	5.14 MPa @Strain 0.0600 %, Temperature 60.0 °C	745 psi @Strain 0.0600 %, Temperature 140 °F	DAM; ISO 11403-1/-2
	5.52 MPa @Strain 0.0400 %, Temperature 0.000 °C	801 psi @Strain 0.0400 %, Temperature 32.0 °F	50%RH; ISO 11403-1/-2
	5.71 MPa @Strain 0.0400 %, Temperature 23.0 °C	828 psi @Strain 0.0400 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	5.72 MPa @Strain 0.0400 %, Temperature 40.0 °C	830 psi @Strain 0.0400 %, Temperature 104 °F	DAM; ISO 11403-1/-2
	6.34 MPa @Strain 0.180 %, Temperature 220 °C	920 psi @Strain 0.180 %, Temperature 428 °F	DAM; ISO 11403-1/-2
	6.39 MPa @Strain 0.140 %, Temperature 120 °C	927 psi @Strain 0.140 %, Temperature 248 °F	50%RH; ISO 11403-1/-2

Mechanical Properties	Metric	English	Comments
	6.44 MPa @Strain 0.160 %, Temperature 150 °C	934 psi @Strain 0.160 %, Temperature 302 °F	50%RH; ISO 11403-1/-2
	6.68 MPa @Strain 0.210 %, Temperature 200 °C	969 psi @Strain 0.210 %, Temperature 392 °F	DAM; ISO 11403-1/-2
	7.11 MPa @Strain 0.180 %, Temperature 180 °C	1030 psi @Strain 0.180 %, Temperature 356 °F	DAM; ISO 11403-1/-2
	7.21 MPa @Strain 0.100 %, Temperature -20.0 °C	1050 psi @Strain 0.100 %, Temperature -4.00 °F	50%RH; ISO 11403-1/-2
	7.22 MPa @Strain 0.140 %, Temperature 90.0 °C	1050 psi @Strain 0.140 %, Temperature 194 °F	50%RH; ISO 11403-1/-2
	7.40 MPa @Strain 0.160 %, Temperature 150 °C	1070 psi @Strain 0.160 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	7.51 MPa @Strain 0.150 %, Temperature 120 °C	1090 psi @Strain 0.150 %, Temperature 248 °F	DAM; ISO 11403-1/-2
	7.57 MPa @Strain 0.100 %, Temperature 0.000 °C	1100 psi @Strain 0.100 %, Temperature 32.0 °F	DAM; ISO 11403-1/-2
	7.73 MPa @Strain 0.0900 %, Temperature -20.0 °C	1120 psi @Strain 0.0900 %, Temperature -4.00 °F	DAM; ISO 11403-1/-2
	7.81 MPa @Strain 0.130 %, Temperature 60.0 °C	1130 psi @Strain 0.130 %, Temperature 140 °F	50%RH; ISO 11403-1/-2
	8.12 MPa @Strain 0.110 %, Temperature 40.0 °C	1180 psi @Strain 0.110 %, Temperature 104 °F	50%RH; ISO 11403-1/-2
	8.26 MPa @Strain 0.150 %, Temperature 90.0 °C	1200 psi @Strain 0.150 %, Temperature 194 °F	DAM; ISO 11403-1/-2
	8.71 MPa @Strain 0.100 %, Temperature 23.0 °C	1260 psi @Strain 0.100 %, Temperature 73.4 °F	50%RH; ISO 11403-1/-2

Mechanical Properties	Metric	English	Comments
	8.84 MPa @Strain 0.110 %, Temperature 60.0 °C	1280 psi @Strain 0.110 %, Temperature 140 °F	DAM; ISO 11403-1/-2
	8.94 MPa @Strain 0.200 %, Temperature 120 °C	1300 psi @Strain 0.200 %, Temperature 248 °F	50%RH; ISO 11403-1/-2
	9.05 MPa @Strain 0.240 %, Temperature 150 °C	1310 psi @Strain 0.240 %, Temperature 302 °F	50%RH; ISO 11403-1/-2
	9.68 MPa @Strain 0.0900 %, Temperature 0.000 °C	1400 psi @Strain 0.0900 %, Temperature 32.0 °F	50%RH; ISO 11403-1/-2

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