

## DuPont Performance Polymers Crastin® SK603 NC010 Polybutylene Terephthalate (PBT) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), 20% Glass Fiber Filled

### Material Notes:

20% Glass Reinforced Polybutylene Terephthalate Crastin SK603 NC010 is a 20% glass fiber reinforced lubricated polybutylene terephthalate resin for injection molding. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Crastin-SK603-NC010-Polybutylene-Terephthalate-PBT-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Crastin-SK603-NC010-Polybutylene-Terephthalate-PBT-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.26 g/cc	0.0455 lb/in <sup>3</sup>	
	1.45 g/cc	0.0524 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.40 %	0.40 %	Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	0.150 %	0.150 %	Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Viscosity	80120 cP	80120 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 260 °C	@Shear Rate 5000 1/s, Temperature 500 °F	
	94280 cP	94280 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 250 °C	@Shear Rate 5000 1/s, Temperature 482 °F	
	112300 cP	112300 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 240 °C	@Shear Rate 5000 1/s, Temperature 464 °F	
	238200 cP	238200 cP	ISO 11403-1 -2
	@Shear Rate 500 1/s, Temperature 260 °C	@Shear Rate 500 1/s, Temperature 500 °F	
	293100 cP	293100 cP	ISO 11403-1 -2
@Shear Rate 500 1/s, Temperature 250 °C	@Shear Rate 500 1/s, Temperature 482 °F		
362400 cP	362400 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 240 °C	@Shear Rate 500 1/s, Temperature 464 °F		
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ISO 294-4 2577

Physical Properties	Metric	English	Comments
<b>Mechanical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Tensile Strength at Break	125 MPa	18100 psi	ISO 527-1/-2
Tensile Stress	21.6 MPa	3130 psi	ISO 11403-1 -2
	@Strain 0.300 %, Temperature 23.0 °C	@Strain 0.300 %, Temperature 73.4 °F	
	73.5 MPa	10700 psi	ISO 11403-1 -2
	@Strain 1.20 %, Temperature 23.0 °C	@Strain 1.20 %, Temperature 73.4 °F	
	105 MPa	15200 psi	ISO 11403-1 -2
	@Strain 2.10 %, Temperature 23.0 °C	@Strain 2.10 %, Temperature 73.4 °F	
	115 MPa	16700 psi	ISO 11403-1 -2
	@Strain 3.30 %, Temperature 23.0 °C	@Strain 3.30 %, Temperature 73.4 °F	
	10.0 MPa	1450 psi	isochronous; ISO 11403-1 -2
	@Strain 0.152 %, Time 36000 sec	@Strain 0.152 %, Time 10.0 hour	
	10.0 MPa	1450 psi	isochronous; ISO 11403-1 -2
	@Strain 0.179 %, Time 3.60e+6 sec	@Strain 0.179 %, Time 1000 hour	
	20.0 MPa	2900 psi	isochronous; ISO 11403-1 -2
	@Strain 0.286 %, Time 3600 sec	@Strain 0.286 %, Time 1.00 hour	
	30.0 MPa	4350 psi	isochronous; ISO 11403-1 -2
	@Strain 0.510 %, Time 360000 sec	@Strain 0.510 %, Time 100 hour	
	50.0 MPa	7250 psi	isochronous; ISO 11403-1 -2
	@Strain 0.975 %, Time 3.60e+6 sec	@Strain 0.975 %, Time 1000 hour	
	50.0 MPa	7250 psi	isochronous; ISO 11403-1 -2
	@Strain 0.785 %, Time 36000 sec	@Strain 0.785 %, Time 10.0 hour	
	50.0 MPa	7250 psi	isochronous; ISO 11403-1 -2
	@Strain 0.745 %, Time 3600 sec	@Strain 0.745 %, Time 1.00 hour	

Mechanical Properties	60.0 MPa Metric	8700 psi English	Comments isochronous; ISO 11403-1 -2
	@Strain 1.09 %, Time 360000 sec	@Strain 1.09 %, Time 100 hour	
Elongation at Break	3.2 %	3.2 %	ISO 527-1/-2
Tensile Modulus	7.40 GPa	1070 ksi	ISO 527-1/-2
	2.20 GPa	319 ksi	ISO 11403-1 -2
	@Temperature 150 °C	@Temperature 302 °F	
	3.684 GPa	534.3 ksi	ISO 11403-1 -2
	@Temperature 60.0 °C	@Temperature 140 °F	
	7.35 GPa	1070 ksi	ISO 11403-1 -2
	@Temperature -20.0 °C	@Temperature -4.00 °F	
Flexural Strength	180 MPa	26100 psi	ISO 178
Flexural Modulus	6.20 GPa	899 ksi	ISO 178
Shear Modulus	0.365 GPa	52.9 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 160 °C	@Temperature 320 °F	
	0.471 GPa	68.3 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 120 °C	@Temperature 248 °F	
	0.704 GPa	102 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 70.0 °C	@Temperature 158 °F	
	1.54 GPa	223 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	1.66 GPa	241 ksi	Dynamic; ISO 11403-1 -2
	@Temperature -20.0 °C	@Temperature -4.00 °F	
	1.77 GPa	257 ksi	Dynamic; ISO 11403-1 -2
	@Temperature -50.0 °C	@Temperature -58.0 °F	
Secant Modulus	4.625 GPa	670.8 ksi	ISO 11403-1 -2
	@Strain 2.40 %, Temperature 23.0 °C	@Strain 2.40 %, Temperature 73.4 °F	
	6.125 GPa	888.4 ksi	ISO 11403-1 -2
	@Strain 1.20 %, Temperature 23.0 °C	@Strain 1.20 %, Temperature 73.4 °F	
	7.20 GPa	1040 ksi	

Mechanical Properties	@Strain 0.300 %, Metric Temperature 23.0 °C	@Strain 0.300 %, English Temperature 73.4 °F	ISO 11403-1 -2 Comments
Izod Impact, Notched (ISO)	9.00 kJ/m <sup>2</sup>	4.28 ft-lb/in <sup>2</sup>	ISO 180/1A
	8.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	3.81 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180/1A
Izod Impact, Unnotched (ISO)	60.0 kJ/m <sup>2</sup>	28.6 ft-lb/in <sup>2</sup>	ISO 180/1U
	60.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	28.6 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180/1U
Charpy Impact Unnotched	6.00 J/cm <sup>2</sup>	28.6 ft-lb/in <sup>2</sup>	ISO 179/1eU
	5.50 J/cm <sup>2</sup> @Temperature -30.0 °C	26.2 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179/1eA
	0.900 J/cm <sup>2</sup> @Temperature -30.0 °C	4.28 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
Tensile Creep Modulus, 1 hour	3090 MPa	448000 psi	ISO 11403-1 -2
	@Pressure 50.0 MPa, Temperature 60.0 °C	@Pressure 7250 psi, Temperature 140 °F	
	3090 MPa	448000 psi	ISO 11403-1 -2
	@Pressure 40.0 MPa, Temperature 60.0 °C	@Pressure 5800 psi, Temperature 140 °F	
	3100 MPa	450000 psi	ISO 11403-1 -2
	@Pressure 30.0 MPa, Temperature 60.0 °C	@Pressure 4350 psi, Temperature 140 °F	
	3110 MPa	451000 psi	ISO 11403-1 -2
	@Pressure 20.0 MPa, Temperature 60.0 °C	@Pressure 2900 psi, Temperature 140 °F	
	3119.7 MPa	452480 psi	ISO 11403-1 -2
	@Pressure 10.0 MPa, Temperature 60.0 °C	@Pressure 1450 psi, Temperature 140 °F	
	6060 MPa	879000 psi	ISO 11403-1 -2
	@Pressure 80.0 MPa, Temperature 23.0 °C	@Pressure 11600 psi, Temperature 73.4 °F	
	6310 MPa	915000 psi	ISO 11403-1 -2
	@Pressure 70.0 MPa, Temperature 23.0 °C	@Pressure 10200 psi, Temperature 73.4 °F	

Mechanical Properties	Metric MPa	English psi	Comments
	@Pressure 60.0 MPa, Temperature 23.0 °C	@Pressure 8700 psi, Temperature 73.4 °F	ISO 11403-1 -2
	6710 MPa	973000 psi	
	@Pressure 50.0 MPa, Temperature 23.0 °C	@Pressure 7250 psi, Temperature 73.4 °F	ISO 11403-1 -2
	6840 MPa	992000 psi	
	@Pressure 40.0 MPa, Temperature 23.0 °C	@Pressure 5800 psi, Temperature 73.4 °F	ISO 11403-1 -2
	6970.9 MPa	1.0110e+6 psi	
	@Pressure 10.0 MPa, Temperature 23.0 °C	@Pressure 1450 psi, Temperature 73.4 °F	ISO 11403-1 -2
	6980 MPa	1.01e+6 psi	
	@Pressure 30.0 MPa, Temperature 23.0 °C	@Pressure 4350 psi, Temperature 73.4 °F	ISO 11403-1 -2
	6990 MPa	1.01e+6 psi	
	@Pressure 20.0 MPa, Temperature 23.0 °C	@Pressure 2900 psi, Temperature 73.4 °F	ISO 11403-1 -2
	7200 MPa	1.04e+6 psi	
	@Time 3600 sec	@Time 1.00 hour	ISO 899-1
Tensile Creep Modulus, 1000 hours	2480 MPa	359000 psi	
	@Pressure 50.0 MPa, Temperature 60.0 °C	@Pressure 7250 psi, Temperature 140 °F	ISO 11403-1 -2

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