

## DuPont Performance Polymers Crastin® S600F40 NC010 PBT (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

Crastin® S600F40 NC010 is an unreinforced, lubricated, low viscosity 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-S600F40-NC010-PBT-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Crastin-S600F40-NC010-PBT-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.31 g/cc	0.0473 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.20 %	0.20 %	Equilibrium 50%RH; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Flow	0.40 %	0.40 %	Saturation, immersed; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Transverse	0.0225 cm/cm	0.0225 in/in	Annealed; ISO 294-4
	0.0195 cm/cm	0.0195 in/in	
Linear Mold Shrinkage, Transverse	@Thickness 2.00 mm	@Thickness 0.0787 in	ISO 294-4
	0.022 cm/cm	0.022 in/in	
Melt Flow	0.018 cm/cm	0.018 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Melt Index of Compound	32.9 g/10 min	32.9 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 250 °C	@Load 4.76 lb, Temperature 482 °F	
Melt Index of Compound	32 g/10 min	32 g/10 min	cm <sup>3</sup> /10 min; ISO 1133
	@Load 2.16 kg, Temperature 250 °C	@Load 4.76 lb, Temperature 482 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	58.0 MPa	8410 psi	ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Elongation at Break	30 %	30 %	nominal; ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	>= 50 %	>= 50 %	

Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	50mm/min: ISO 527 Comments
Elongation at Yield	6.0 % @Temperature 23.0 °C	6.0 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	2.60 GPa @Temperature 23.0 °C	377 ksi @Temperature 73.4 °F	ISO 527
Flexural Strength	85.0 MPa @Temperature 23.0 °C	12300 psi @Temperature 73.4 °F	ISO 178
Flexural Modulus	2.40 GPa @Temperature 23.0 °C	348 ksi @Temperature 73.4 °F	ISO 178
Izod Impact, Notched (ISO)	4.00 kJ/m <sup>2</sup> @Temperature 23.0 °C	1.90 ft-lb/in <sup>2</sup> @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	0.400 J/cm <sup>2</sup> @Temperature -30.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
	0.400 J/cm <sup>2</sup> @Temperature 23.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eA
Tensile Creep Modulus, 1 hour	2600 MPa @Temperature 23.0 °C	377000 psi @Temperature 73.4 °F	ISO 899
Tensile Creep Modulus, 1000 hours	1800 MPa @Temperature 23.0 °C	261000 psi @Temperature 73.4 °F	ISO 899

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	ISO 11359-1/-2
CTE, linear, Transverse to Flow	120 µm/m-°C @Temperature 23.0 - 55.0 °C	66.7 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1/-2
Melting Point	225 °C	437 °F	10°C/min; ISO 11357-1/-3

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (67 psi)	180 °C	356 °F	Annealed; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	50.0 °C	122 °F	ISO 75-1/-2
	60.0 °C	140 °F	Annealed; ISO 75-1/-2
Glass Transition Temp, Tg	55.0 °C	131 °F	10°C/min; ISO 11357-1/-2
UL RTI, Electrical	130 °C	266 °F	UL 746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	130 °C	266 °F	
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL 746B
	130 °C	266 °F	UL 746B
	@Thickness 6.00 mm	@Thickness 0.236 in	
	130 °C	266 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical with Impact	115 °C	239 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	115 °C	239 °F	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	115 °C	239 °F	
	@Thickness 3.00 mm	@Thickness 0.118 in	UL 746B
	115 °C	239 °F	UL 746B
	@Thickness 6.00 mm	@Thickness 0.236 in	
UL RTI, Mechanical without Impact	120 °C	248 °F	UL 746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	120 °C	248 °F	
	@Thickness 3.00 mm	@Thickness 0.118 in	
	120 °C	248 °F	
	@Thickness 6.00 mm	@Thickness 0.236 in	UL 746B
	120 °C	248 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	

Flammability UL 94 Thermal Properties	Metric @Thickness 6.00 mm	English @Thickness 0.236 in	IEC 60695-11-10 Comments
	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	IEC 60695-11-10
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	IEC 60695-11-10
	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	UL94
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	UL94
	HB @Thickness 6.00 mm	HB @Thickness 0.236 in	UL94
Oxygen Index	22 %	22 %	ISO 4589-1/-2
Glow Wire Test	750 °C @Thickness 3.00 mm	1380 °F @Thickness 0.118 in	IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm @Temperature 23.0 °C	>= 1.00e+15 ohm-cm @Temperature 73.4 °F	IEC 60093
Surface Resistance	>= 1.00e+12 ohm @Temperature 23.0 °C	>= 1.00e+12 ohm @Temperature 73.4 °F	IEC 60093
Dielectric Constant	3.2 @Frequency 1.00e+6 Hz, Temperature 23.0 °C	3.2 @Frequency 1.00e+6 Hz, Temperature 73.4 °F	IEC 60250
	3.8 @Frequency 100 Hz, Temperature 23.0 °C	3.8 @Frequency 100 Hz, Temperature 73.4 °F	IEC 60250
	3.8 @Frequency 50.0 Hz, Temperature 23.0 °C	3.8 @Frequency 50.0 Hz, Temperature 73.4 °F	IEC 60250
Dielectric Strength	26.0 kV/mm @Thickness 2.00 mm	660 kV/in @Thickness 0.0787 in	IEC 60243-1
	26.0 kV/mm	660 kV/in	IEC 60243-1

Electrical Properties	Metric @Thickness 1.00 mm, Temperature 23.0 °C	English @Thickness 0.0394 in, Temperature 73.4 °F	Comments
Dissipation Factor	0.0020	0.0020	IEC 60250
	@Frequency 100 Hz, Temperature 23.0 °C	@Frequency 100 Hz, Temperature 73.4 °F	
	0.0020	0.0020	
	@Frequency 50.0 Hz, Temperature 23.0 °C	@Frequency 50.0 Hz, Temperature 73.4 °F	IEC 60250
	0.020	0.020	IEC 60250
	@Frequency 1.00e+6 Hz, Temperature 23.0 °C	@Frequency 1.00e+6 Hz, Temperature 73.4 °F	
Comparative Tracking Index	250 V	250 V	UL 746A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	600 V	600 V	IEC 60112
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Processing Properties	Metric	English	Comments
Melt Temperature	250 °C	482 °F	Optimum
	240 - 260 °C	464 - 500 °F	
Mold Temperature	80.0 °C	176 °F	optimum
	30.0 - 130 °C	86.0 - 266 °F	
Drying Temperature	110 - 130 °C	230 - 266 °F	
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	
Moisture Content	<= 0.040 %	<= 0.040 %	

Descriptive Properties	Value	Comments
Additive	Lubricant	
Appearance	Natural Color	

## Contact Songhan Plastic Technology Co.,Ltd.

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