

# DuPont™ Crastin® PBT

thermoplastic polyester resin

## Crastin® S660FR NC010

Crastin® S660FR NC010 is an unreinforced, flame retardant, lubricated polybutylene terephthalate resin for injection molding. It is recognized by UL as UL94V-0 at 0.40mm (0.016in).

Property	Test Method	Units	Value
<b>Identification</b>			
Resin Identification	ISO 1043		PBT-FR(17)
Part Marking Code	ISO 11469		>PBT-FR(17)<
<b>Mechanical</b>			
Yield Stress	ISO 527	MPa (kpsi)	52 (7.5)
Nominal Strain at Break	ISO 527	%	10
Yield Strain	ISO 527	%	3.5
Tensile Modulus	ISO 527	MPa (kpsi)	2800 (406)
Flexural Modulus	ISO 178	MPa (kpsi)	2700 (384)
Flexural Strength	ISO 178	MPa (kpsi)	85 (12)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-40°C (-40°F)			4
-30°C (-22°F)			4
23°C (73°F)			4
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	
-40°C (-40°F)			55
-30°C (-22°F)			65
23°C (73°F)			70

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

The DuPont Oval Logo, DuPont™, The miracles of science™ and Crastin® are trademarks or registered trademarks of DuPont Company. Copyright© 2005.

050423/050425

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials, additives or pigments or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. DuPont advises you to seek independent counsel for a freedom to practice opinion on the intended application or end-use of our products. Caution: Do not use this product in medical applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-50102.

## Crastin® S660FR NC010

Property	Test Method	Units	Value
<b>Thermal</b>			
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	165 (329)
1.80MPa			55 (131)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	225 (437)
<b>Flammability</b>			
Flammability Classification 0.4mm	IEC 60695-11-10		V-0
Flammability Classification 0.4mm	UL94		V-0
Oxygen Index	ISO 4589-1/-2	%	30
Glow Wire Flammability Index 0.75mm	IEC 60695-2-12	°C	960
Glow Wire Ignition Temperature 0.75mm	IEC 60695-2-13	°C	700
High Amperage Arc Ignition Resistance 0.75mm	UL 746A	arcs	>150
Hot Wire Ignition 0.75mm	UL 746A	s	13
1.5mm			12
3.0mm			17
<b>Temperature Index</b>			
RTI, Electrical 0.75mm	UL 746B	°C	140
RTI, Impact 0.75mm	UL 746B	°C	120
RTI, Strength 0.75mm	UL 746B	°C	140

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

The DuPont Oval Logo, DuPont™, The miracles of science™ and Crastin® are trademarks or registered trademarks of DuPont Company. Copyright© 2

050423/050425

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials, additives or pigments or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. DuPont advises you to seek independent counsel for a freedom to practice opinion on the intended application or end-use of our products. Caution: Do not use this product in medical applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-50102.

## Crastin® S660FR NC010

Property	Test Method	Units	Value
<b>Other</b>			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1470 (1.47)
Hardness, Rockwell	ISO 2039/2		
Scale R			114
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			1.8
Parallel, 2.0mm			1.9
Mold Shrinkage		%	
Flow, 3.2mm (0.126in)			1.8
Transverse, 3.2mm (0.126in)			2.2
<b>Processing</b>			
Melt Temperature Range		°C (°F)	240-260 (465-500)
Melt Temperature Optimum		°C (°F)	250 (480)
Mold Temperature Range		°C (°F)	30-130 (85-265)
Mold Temperature Optimum		°C (°F)	80 (175)
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C (°F)	110-130 (230-265)
Processing Moisture Content		%	<0.04

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

The DuPont Oval Logo, DuPont™, The miracles of science™ and Crastin® are trademarks or registered trademarks of DuPont Company. Copyright© 2

050423/050425

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials, additives or pigments or in any process, unless expressly indicated otherwise.

The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. DuPont advises you to seek independent counsel for a freedom to practice opinion on the intended application or end-use of our products. Caution: Do not use this product in medical applications involving permanent implantation in the human body.

For other medical applications see "DuPont Medical Caution Statement", H-50102.