DuPont<sup>™</sup> Zytel<sup>®</sup>

nylon resin

## Zytel® 70K20HSL NC010

Zytel® 70K20HSL NC010 is a heat stabilized PA66 resin modified with Kevlar® for excellent wear resistance.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66-RF20	
Part Marking Code	ISO 11469		>PA66-RF20<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	110 (16.0)	85 (12.3)
Strain at Break	ISO 527	%	5.2	7.2
Tensile Modulus	ISO 527	MPa (kpsi)	5300 (769)	3500 (510)
Flexural Modulus	ISO 178	MPa (kpsi)	4900 (710)	3300 (478)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	6	9
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	50	65
Thermal				
Deflection Temperature	ISO 75f	°C (°F)		
0.45MPa			255 (491)	
1.80MPa			222 (432)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			263 (505)	
Vicat Softening Temperature	ISO 306	°C (°F)		
50N			250 (482)	

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<sup>TM</sup>, The miracles of science<sup>TM</sup> and Zytel® are trademarks or registered trademarks of DuPont Company. Copyright© 2005.

040730/050920

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 applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-50102.

Property	Test Method	Units	Value	
			DAM	50%RH
Other				
Density	ISO 1183	$kg/m^3$ (g/cm <sup>3</sup> )	1190 (1.19)	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			2.7	
Saturation, immersed			6.8	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			1.4	
Parallel, 2.0mm			0.9	
Processing				
Melt Temperature Range		°C (°F)	285-305 (545-580)	
Melt Temperature Optimum		°C (°F)	295 (565)	
Mold Temperature Range		°C (°F)	70-120 (160-250)	
Mold Temperature Optimum		°C (°F)	100 (210)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	< 0.20	

## Zytel® 70K20HSL NC010

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<sup>TM</sup>, The miracles of science<sup>TM</sup> and Zytel® are trademarks or registered trademarks of DuPont Company. Copyright© 2005.

040730/050920

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 applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-50102.