# **DuPont<sup>™</sup> Zytel<sup>®</sup>**

nylon resin

#### PRELIMINARY DATA

## Zytel® 75CG45HSL BK409

Zytel® 75CG45HSL BK409 is a 45% glass and carbon fiber reinforced, toughened, heat stabilized polyamide resin.

Property	Test Method	Units	Value
			DAM
Identification			
Resin Identification	ISO 1043		PA-I(GF+CF)
Part Marking Code	ISO 11469		>PA-I(GF+CF)<
Mechanical			
Stress at Break	ISO 527	MPa (kpsi)	175 (25)
Strain at Break	ISO 527	%	2.9
Tensile Modulus	ISO 527	MPa (kpsi)	17500 (2540)
Flexural Modulus	ISO 178	MPa (kpsi)	15500 (2250)
Flexural Strength	ISO 178	MPa (kpsi)	300 (44)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-40°C (-40°F)			9
23°C (73°F)			15
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	80
Thermal			
Deflection Temperature	ISO 75-1/-2	°C (°F)	
0.45MPa			238 (460)
1.80MPa			218 (424)
Melting Temperature	ISO 11357-1/-3	°C (°F)	
10°C/min, First Heat			256 (493)

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 above data are preliminary and are subject to change as additional data are developed on subsequent lots.

 $The \ DuPont \ Oval \ Logo, DuPont^{TM}, The \ miracles \ of \ science^{TM} \ and \ Zytel \textcircled{@} \ are \ trademarks \ or \ registered \ trademarks \ of \ DuPont \ Company. \ Copyright \textcircled{@} \ 2008$ 

081006/081008

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 DuPont materials in medical application involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of DuPont POLICY Regarding Medical Applications H-50103-2 and DuPont CAUTION Regarding Medical Applications ... H-50102-2



#### **Product Information**

### Zytel® 75CG45HSL BK409

Property	Test Method	Units	Value DAM
Electrical			Ditivi
Volume Resistivity	ASTM D 4496	ohm m	1E2
Other			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1420 (1.42)
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			0.6
Parallel, 2.0mm			0.2
Processing			
Melt Temperature Range		°C (°F)	280-305 (535-580)
Melt Temperature Optimum		°C (°F)	290 (555)
Mold Temperature Range		°C (°F)	50-100 (122-212)
Mold Temperature Optimum		°C (°F)	80 (176)
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C (°F)	80 (180)
Processing Moisture Content		%	< 0.20

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 above data are preliminary and are subject to change as additional data are developed on subsequent lots.

 $The \ DuPont \ Oval \ Logo, \ DuPont^{TM}, \ The \ miracles \ of \ science^{TM} \ and \ Zytel \circledast \ are \ trademarks \ or \ registered \ trademarks \ of \ DuPont \ Company. \ Copyright @ 2008 \ and \ Sytel \ when \ Sytel \ Sytel \ when \ Sytel \ Sytel \ when \ Sytel \ Sytel \ Sytel \ Sytel \ Sytel \ when \ Sytel \ Syte$ 

081006/081008

Internolmation in the data sirect corresponds to our knowledge of the supplication in the fundamental may be subject to devision 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 DuPont materials in medical application involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of DuPont POLICY Regarding Medical Applications H-50103-2 and DuPont CAUTION Regarding Medical Applications ... H-50102-2

