

# Delrin® 525GR NC000

## ACETAL RESIN

### Product Description

Delrin® 525GR NC000 is a 25% glass reinforced acetal homopolymer for injection molding. It has very high strength, stiffness, and high deflection temperature, and excellent creep resistance.

### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Central America • Europe • Latin America • North America • South America
Filler / Reinforcement	• Glass Fiber Reinforcement, 25% Filler by Weight
Features	• Good Creep Resistance • High Stiffness • High Strength • Homopolymer • Medium Viscosity • Ultrasonic Weldable
Uses	• Automotive Applications • Engineering Parts • Gears • Metal Replacement
RoHS Compliance	• Contact Manufacturer
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)
Part Marking Code (ISO 11469)	• >POM-GF25<
Resin ID (ISO 1043)	• POM-GF25
Product Category	• Glass Reinforced Resins

Physical	Nominal Value Unit	Test Method
Density	1.60 g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	5.00 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage		ISO 294-4
Across Flow: 2.00 mm	1.2 %	
Flow: 2.00 mm	0.40 %	
Water Absorption		ISO 62
Saturation, 23°C	1.3 %	
Equilibrium, 23°C, 50% RH	0.17 %	
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (23°C)	9500 MPa	ISO 527-2
Tensile Stress (Break, 23°C)	145 MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.0 %	ISO 527-2
Tensile Creep Modulus		ISO 899-1
1 hr	8500 MPa	
1000 hr	6000 MPa	
Flexural Modulus (23°C)	8500 MPa	ISO 178
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	8.0 kJ/m <sup>2</sup>	
23°C	8.0 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	50 kJ/m <sup>2</sup>	
23°C	50 kJ/m <sup>2</sup>	
Notched Izod Impact Strength (23°C)	8.0 kJ/m <sup>2</sup>	ISO 180/1A

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To find out more, visit [DuPont Performance Polymers](#) or contact the nearest DuPont location.

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Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	176 °C	ISO 75-2/B
1.8 MPa, Unannealed	172 °C	ISO 75-2/A
Melting Temperature <sup>2</sup>	178 °C	ISO 11357-3
CLTE		ISO 11359-2
Flow: -40 to 23°C	0.000037 cm/cm/°C	
Flow: 23 to 55°C	0.000035 cm/cm/°C	
Flow: 55 to 100°C	0.000014 cm/cm/°C	
Transverse: -40 to 23°C	0.000086 cm/cm/°C	
Transverse: 23 to 55°C	0.00010 cm/cm/°C	
Transverse: 55 to 100°C	0.00015 cm/cm/°C	
RTI Elec (0.750 mm)	50.0 °C	UL 746
RTI Imp (0.750 mm)	50.0 °C	UL 746
RTI Str (0.750 mm)	50.0 °C	UL 746
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+14 ohm·cm	IEC 60093
Relative Permittivity		IEC 60250
23°C, 100 Hz	3.70	
23°C, 1 MHz	3.80	
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.750 mm)	HB	UL 94 IEC 60695-11-10, -20
Injection	Nominal Value Unit	
Drying Temperature	80.0 °C	
Drying Time - Desiccant Dryer	2.0 to 4.0 hr	
Suggested Max Moisture	< 0.10 %	
Processing (Melt) Temp	210 to 220 °C	
Melt Temperature, Optimum - Injection Molding	215 °C	
Mold Temperature	80.0 to 100 °C	
Mold Temperature, Optimum - Injection Molding	90 °C	
Drying Recommended	Yes, if moisture content of resin exceeds recommended level	

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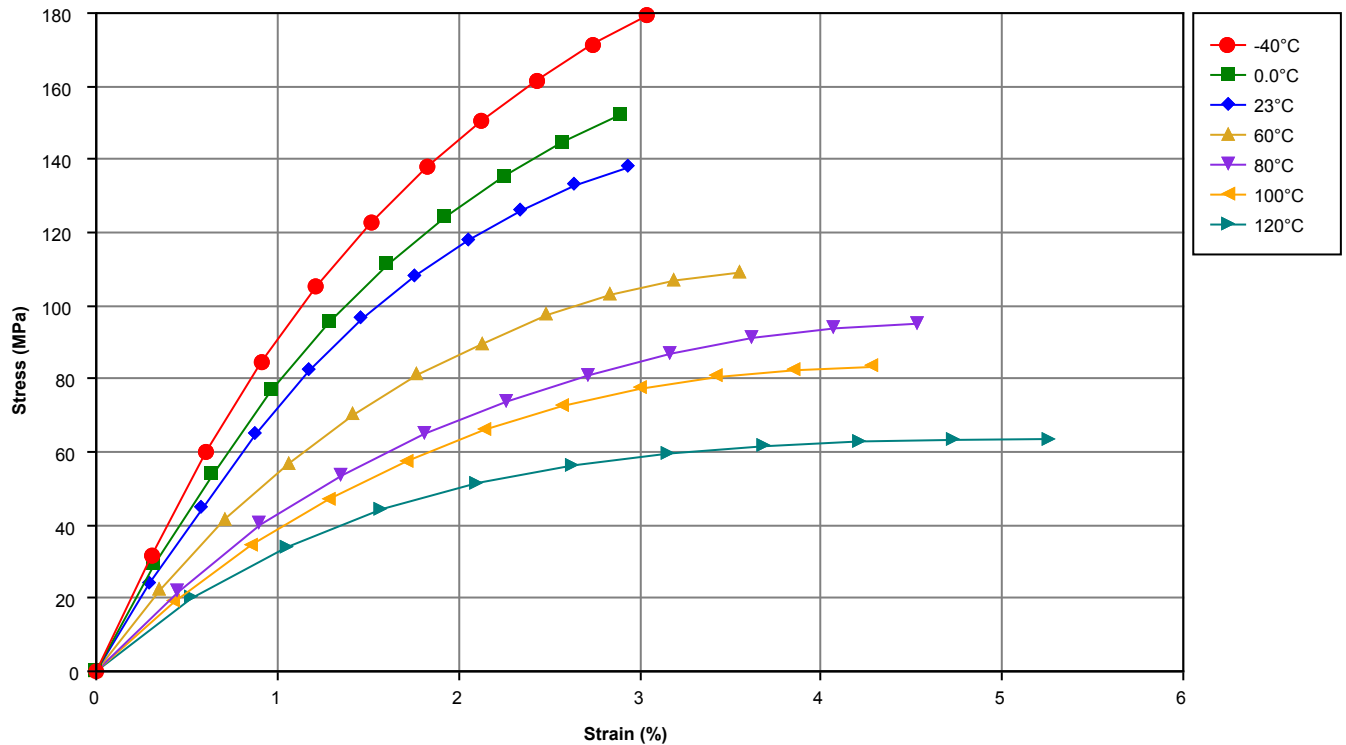
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Isothermal Stress vs. Strain (ISO 11403-1)



## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min

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.

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