DuPont™ Delrin® 525GR BK000 ACETAL RESIN

General Information Value Unit Test Standard	Product Information Delrin® 525GR BK000 is a 25% Glass Reinforced Medium Viscosity Acetal Homopolymer					
Part Marking Code POM-GFZ5 - SO 11469	General information		Value	Unit	Test Standard	
Rheological properties Value	Resin Identification		POM-GF25	-	ISO 1043	
Rheological properties Value Unit Test Standard	Part Marking Code		POM-GF25	-	ISO 11469	
Melt mass-flow rate, Temperature 190 °C ISO 1133 Melt mass-flow rate, Load 2.16 kg ISO 1133 Meth mass-flow rate, Load 2.16 kg ISO 1133 Meshanical properties Value Unit Test standard Tensile Modulus 9500 MPa ISO 527-17-2 Flexural Modulus 8500 MPa ISO 178 Flexural Stress at 3.5% 200 MPa ISO 178 Charpy impact strength, 73°F 50 kJ/m² ISO 179/1eU Charpy notched impact strength, -22°F 7.5 kJ/m² ISO 179/1eU Thermal properties Value Unit Test standard Melting temperature, 18°F/min 178 °C ISO 1357-1/-3 ISO 179/1eU Temp. of deflection under load 172 °C ISO 1357-1/-3 ISO 175-1/-2 ISO 75-1/-2 ISO 75-1/-2 ISO 75-1/-2 ISO 75-1/-2 ISO 175-1/-2 I			Value	Unit	Test Standard	
Melt mass-flow rate, Temperature 190 °C ISO 1133 Meth mass-flow rate, Load 2.16 kg ISO 1133 Mechanical properties Value Unit Test Standard Tensile Modulus 9500 MPa ISO 527-1/-2 Flexural Modulus 8500 MPa ISO 178 Flexural Stress at 3.5% 200 MPa ISO 178 ISO 178 Charpy impact strength, 73°F 50 kJ/m² ISO 179/1eU Charpy notched impact strength, -22°F 7.5 kJ/m² ISO 179/1eA Thermal properties Value Unit Test Standard Melting temperature, 18°F/min 178 °C ISO 179/1eA Temp. of deflection under load 172 °C ISO 179-1/-2 260 psi 172 °C ISO 179-1/-2 Flammability Value Unit Test Standard FMYSS Class B - ISO 3795 (FMYSS 302) Burning rate, Thickness 1 mm 44 mm/min ISO 3795 (FMYSS 302) Other properties Value Unit Test Standard Density 1590 kg/m³ <t< td=""><td></td><td></td><td>7</td><td>g/10min</td><td></td></t<>			7	g/10min		
Meth mass-flow rate, Load 2,16 kg ISO 1133 Mechanical properties Value Unit Test Standard Tensile Modulus 9500 MPa ISO 527-17-2 Flexural Modulus 8500 MPa ISO 178 Flexural Stress at 3.5% 200 MPa ISO 178 Charpy impact strength, 73 °F 50 kJ/m² ISO 179/16U Charpy impact strength, -22°F 7.5 kJ/m² ISO 179/16U Charpy notched impact strength, -22°F 7.5 kJ/m² ISO 179/16A Thermal properties Value Unit Test Standard Melting temperature, 18°F/min 178°C ISO 11357-17-3 Temp. of deflection under load ISO 1357-17-2 260 psi 172°C 65 psi 175°C Flammability Value Unit Test Standard FMVS Class B - ISO 3795 (FMVSS 302) Burning rate, Thickness 1 mm 44 mm/min ISO 3795 (FMVSS 302) Other properties Value Unit Test Standard Density 1590 kg/m³ ISO 1183 Injection Value Unit Test Standard Drying Recommended yes Drying Temperature 280 °C - Drying Time, Dehumidified Dryer 2 · 4 h - Drying Time, Dehumidified Dryer 2 · 4 h - Drying Time, Dehumidified Dryer 2 · 4 h - Processing Moisture Content 50.2 % - Max. melt temperature 210 °C - Min. molt temperature 220 °C - Min. mold temperature 80	Melt mass-flow rate, Temperature		190		ISO 1133	
Mechanical properties Value Unit Test Standard	Melt mass-flow rate, Load		2.16	kg		
Tensile Modulus			Value		Test Standard	
Flexural Stress at 3.5%			9500	MPa	ISO 527-1/-2	
Charpy impact strength, 73°F 50 kJ/m² ISO 179/1eU	Flexural Modulus		8500	MPa	ISO 178	
Charpy notched impact strength, -22°F	Flexural Stress at 3.5%		200	MPa	ISO 178	
Thermal properties	Charpy impact strength, 73°F		50	kJ/m²	ISO 179/1eU	
Melting temperature, 18°F/min 178 °C ISO 11357-1/-3 Temp. of deflection under load 172 °C 260 psi 175 °C 65 psi 175 °C Flammability Value Unit Test Standard FMVSS Class B - ISO 3795 (FMVSS 302) Burning rate, Thickness 1 mm 44 mm/min ISO 3795 (FMVSS 302) Other properties Value Unit Test Standard Density 1590 kg/m³ ISO 1183 Injection Value Unit Test Standard Drying Recommended yes - - Drying Temperature ≥80 °C - - Drying Time, Dehumidified Dryer 2 - 4 h - - Processing Moisture Content ≤0.2 % - - Melt Temperature Optimum 215 °C - - Max. melt temperature 210 °C - Max. melt temperature 80 °C - Max. mold temperature 80 °C	Charpy notched impact strength, -22°F		7.5	kJ/m²	ISO 179/1eA	
Temp. of deflection under load 260 psi 172 °C 175 °	Thermal properties		Value	Unit	Test Standard	
172 °C 65 psi 175 °C Flammability Value Unit Test Standard FMVSS Class B - ISO 3795 (FMVSS 302) Burning rate, Thickness 1 mm 44 mm/min ISO 3795 (FMVSS 302) Test Standard Unit Unit Test Standard Unit Unit Test Standard Unit Unit Test Standard Unit	Melting temperature, 18°F/min		178	°C	ISO 11357-1/-3	
175 °C Flammability Value Unit Test Standard	Temp. of deflection under load				ISO 75-1/-2	
Flammability FMVSS Class B - ISO 3795 (FMVSS 302) Burning rate, Thickness 1 mm Other properties Value Unit Test Standard Density I590 kg/m³ ISO 1183 Injection Value Unit Test Standard Density I590 kg/m³ ISO 1183 Injection Drying Recommended Value Unit Test Standard Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Drying Time	260 psi		172	°C		
Flammability FMVSS Class B - ISO 3795 (FMVSS 302) Burning rate, Thickness 1 mm Other properties Value Unit Test Standard Density I590 kg/m³ ISO 1183 Injection Value Unit Test Standard Density I590 kg/m³ ISO 1183 Injection Drying Recommended Value Unit Test Standard Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Drying Time	65 psi		175	°C		
FMVSS Class Burning rate, Thickness 1 mm Other properties Value Unit Density 1590 kg/m³ ISO 1183 Injection Value Drying Recommended Value Drying Temperature Processing Moisture Content Melt Temperature Drime, Dehumidified Dryer Processing Moisture Content Max. melt temperature Max. melt temperature Moid Tempera	Flammability		Value	Unit	Test Standard	
Other properties Value Unit Test Standard Density 1590 kg/m³ ISO 1183 Injection Value Unit Test Standard Drying Recommended yes - Drying Temperature ≥80 °C - - Drying Time, Dehumidified Dryer 2 - 4 h - - Processing Moisture Content ≤0.2 % - - Melt Temperature Optimum 215 °C - - Mein. melt temperature 210 °C - - Max. melt temperature 220 °C - - Mold Temperature Optimum 90 °C - - Min. mold temperature 80 °C - - Max. mold temperature 80 °C - - Min. mold temperature 80 °C - - Hold pressure range 80 °C - - Hold pressure time 8 s/mm - - Characteristics Processing • Injection Molding Delivery form • Pellets Regional Availability • North America • Asia Pacific • Near East/Africa	FMVSS Class		В	-	ISO 3795 (FMVSS 302)	
Other properties Value Unit Test Standard Density 1590 kg/m³ ISO 1183 Injection Value Unit Test Standard Drying Recommended yes - Drying Temperature ≥80 °C - - Drying Time, Dehumidified Dryer 2 - 4 h - - Processing Moisture Content ≤0.2 % - - Melt Temperature Optimum 215 °C - - Mein. melt temperature 210 °C - - Max. melt temperature 220 °C - - Mold Temperature Optimum 90 °C - - Min. mold temperature 80 °C - - Max. mold temperature 80 °C - - Min. mold temperature 80 °C - - Hold pressure range 80 °C - - Hold pressure time 8 s/mm - - Characteristics Processing • Injection Molding Delivery form • Pellets Regional Availability • North America • Asia Pacific • Near East/Africa	Burning rate, Thickness 1 mm		44	mm/min	ISO 3795 (FMVSS 302)	
Injection Value Unit Test Standard Drying Recommended yes			Value	Unit	Test Standard	
Drying Recommended Drying Temperature ≥80 °C Drying Time, Dehumidified Dryer 2 - 4 h Processing Moisture Content ≤0.2 % Melt Temperature Optimum Min. melt temperature 210 °C Max. melt temperature 220 °C Mold Temperature Optimum 90 °C Min. mold temperature 80 °C Min. mold temperature 80 °C Max. mold temperature 80 °C - Max. mold te	Density		1590	kg/m³	ISO 1183	
Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content △0.2 % Melt Temperature Optimum Min. melt temperature Max. melt temperature Mold Temperature Optimum Mold Temperature Optimum Mold temperature Mold Temperature Optimum Mold temperature Mold Pressure time Mold Pressure time Mold Pressure time North Melding Pellets North America	Injection		Value	Unit	Test Standard	
Drying Time, Dehumidified Dryer 2 - 4 h - Processing Moisture Content ≤0.2 % - Melt Temperature Optimum 215 °C - Min. melt temperature 210 °C - Max. melt temperature 220 °C - Mold Temperature Optimum 90 °C - Min. mold temperature 80 °C - Max. mold temperature 100 °C - Hold pressure range 80 - 100 MPa - Hold pressure time 8 s/mm - Characteristics Processing Injection Molding Delivery form Pellets North America Asia Pacific Near East/Africa	Drying Recommended		yes	-	-	
Processing Moisture Content Melt Temperature Optimum 215 °C Min. melt temperature 210 °C Max. melt temperature 220 °C Mold Temperature Optimum 90 °C Min. mold temperature 80 °C Max. mold temperature 100 °C Max. mold temperature 80 °C Max. mold temperature 80 °C Max. mold temperature 80 °C Focessing Hold pressure range 80 - 100 MPa - Characteristics Processing Processing Injection Molding Delivery form Pellets North America Asia Pacific Near East/Africa	Drying Temperature		≥80	°C	-	
Melt Temperature Optimum 215 °C - Min. melt temperature 210 °C - Max. melt temperature 220 °C - Mold Temperature Optimum 90 °C - Min. mold temperature 80 °C - Max. mold temperature 100 °C - Hold pressure range 80 - 100 MPa - Hold pressure time 8 s/mm - Characteristics Processing • Injection Molding Delivery form • Pellets Regional Availability • North America • Asia Pacific • Near East/Africa			2 - 4	h	-	
Min. melt temperature Max. melt temperature Mold Temperature Optimum Min. mold temperature Max. mold temperatu	Processing Moisture Content		≤0.2	%	-	
Max. melt temperature 220 °C - Mold Temperature Optimum 90 °C - Min. mold temperature 80 °C - Max. mold temperature 100 °C - Hold pressure range 80 - 100 MPa - Hold pressure time 8 s/mm - Characteristics Processing • Injection Molding Delivery form • Pellets Regional Availability • North America • Asia Pacific • Near East/Africa	Melt Temperature Optimum		215		-	
Mold Temperature Optimum Min. mold temperature Min. mold temperature Max. mold temperatu	Min. melt temperature		210		-	
Min. mold temperature Max. mold temperature Max. mold temperature Hold pressure range Hold pressure time 80 ° C -	Max. melt temperature		220		-	
Max. mold temperature Hold pressure range Hold pressure time 80 - 100 MPa - Characteristics Processing Processing Pellets Pellets Regional Availability North America 100 °C - Near East/Africa			90		-	
Hold pressure range Hold pressure time 80 - 100 MPa - 8 s/mm - Characteristics Processing Processing Pelivery form Pellets Processing Processing Pellets Pellets Perional Availability North America Perional Availability North America Perional Availability				-	-	
Hold pressure time 8 s/mm - Characteristics Processing Delivery form Pellets Regional Availability North America 8 s/mm - Asia Pacific Near East/Africa	Max. mold temperature				-	
Characteristics Processing Delivery form Pellets Regional Availability North America Phase Asia Pacific Near East/Africa			80 - 100	MPa	-	
Processing Delivery form Pellets Regional Availability North America Asia Pacific Near East/Africa	Hold pressure time		8	s/mm	-	
Delivery form • Pellets Regional Availability • North America • Asia Pacific • Near East/Africa						
Regional Availability • North America • Asia Pacific • Near East/Africa						
Regional Availability	Delivery form					
	Regional Availability					

Processing Texts

Injection molding

Drying is recommended, but not necessary for newly opened packaging stored in a dry location.

Follow the drying guidelines above in the following cases:

- · If moisture is above the Processing Moisture Content recommendation,
- \cdot When a resin container is damaged,

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To find out more, visit DuPont Performance Polymers or contact nearest DuPont location.

North America Asia Pacific Europe/Middle East/Africa

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DuPont™ Delrin® 525GR BK000 ACETAL RESIN

- · When the material is not properly stored in a dry place at room temperature, or
- · When packaging stays open for a significant time.

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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