DuPont™ Delrin® 300ATB BK000

ACETAL RESIN

Product Information

Common features of Delrin® acetal resins include mechanical and physical properties such as high mechanical strength and rigidity, excellent fatigue and impact resistance, as well as resistance to moisture, gasoline, lubricants, solvents, and many other neutral chemicals. Delrin® acetal resins also have excellent dimensional stability and good electrical insulating characteristics. They are naturally resilient, self-lubricating, and available in a variety of colors and speciality grades.

Delrin® acetal resin typically is used in demanding applications in the automotive, domestic appliances, sports, industrial engineering, electronics, and consumer goods industries.

Delrin® 300ATB is a filled, medium viscosity, toughened acetal homopolymer, designed to aid static dissipation of electric charge. Processing methods include injection molding.

General information	Value	Unit	Test Standard	
Resin Identification	POM-ICD	-	ISO 1043	
Part Marking Code	POM-ICD	-	ISO 11469	
Rheological properties	**Value**	**Unit**	**Test Standard**	
Melt volume-flow rate	2.3	cm^3/10min	ISO 1133	
Temperature	190	°C	ISO 1133	
Load	2.16	kg	ISO 1133	
Molding shrinkage, parallel	1.7	%	ISO 294-4, 2577	
Molding shrinkage, normal	1.5	%	ISO 294-4, 2577	
Mechanical properties	**Value**	**Unit**	**Test Standard**	
Tensile Modulus	2300	MPa	ISO 527-1/-2	
Stress at break	50	MPa	ISO 527-1/-2	
Strain at break	16	%	ISO 527-1/-2	
Flexural Modulus	2100	MPa	ISO 178	
Charpy notched impact strength			ISO 179/1eA	
73°F	8	kJ/m^2		
-22°F	6	kJ/m^2		
Izod notched impact strength, 73°F	7	kJ/m^2	ISO 180/1A	A

A: Assessed

Thermal properties	Value	Unit	Test Standard
Melting temperature, 18°F/min	178	°C	ISO 11357-1/-3
Temp. of deflection under load			ISO 75-1/-2
260 psi	70	°C	
65 psi	135	°C	
Coeff. of linear therm. expansion, parallel	120	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	120	E-6/K	ISO 11359-1/-2
Flammability	**Value**	**Unit**	**Test Standard**
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Electrical properties	**Value**	**Unit**	**Test Standard**
Surface resistivity, conductive plastics	20000	Ohm	ASTM D 4496
Volume resistivity, conductive plastics	1000	Ohm*m	ASTM D 4496
Other properties	**Value**	**Unit**	**Test Standard**
Density	1410	kg/m^3	ISO 1183
Injection	**Value**	**Unit**	**Test Standard**
Drying Recommended	yes	-	-
Drying Temperature	80	°C	-
Drying Time, Dehumidified Dryer	2 - 4	h	-
Processing Moisture Content	≤0.05	%	-
Melt Temperature Optimum	205	°C	-
Min. melt temperature	200	°C	-
Max. melt temperature	210	°C	-
Mold Temperature Optimum	50	°C	-
Min. mold temperature	40	°C	-
Max. mold temperature	60	°C	-

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Hold pressure range	60 - 80	MPa	-
Hold pressure time	7.5	s/mm	-
Extrusion	**Value**	**Unit**	**Test Standard**
Drying Temperature	75 - 85	°C	-
Drying Time, Dehumidified Dryer	2 - 4	h	-
Processing Moisture Content	≤0.05	%	-
Melt Temperature Optimum	200	°C	-
Melt Temperature Range	195 - 205	°C	-

Characteristics			
Processing	• Injection Molding • Profile Extrusion	• Sheet Extrusion • Other Extrusion	
Delivery form	• Pellets		
Special characteristics	• Increased electrical conductivity	• Static dissipative	
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global

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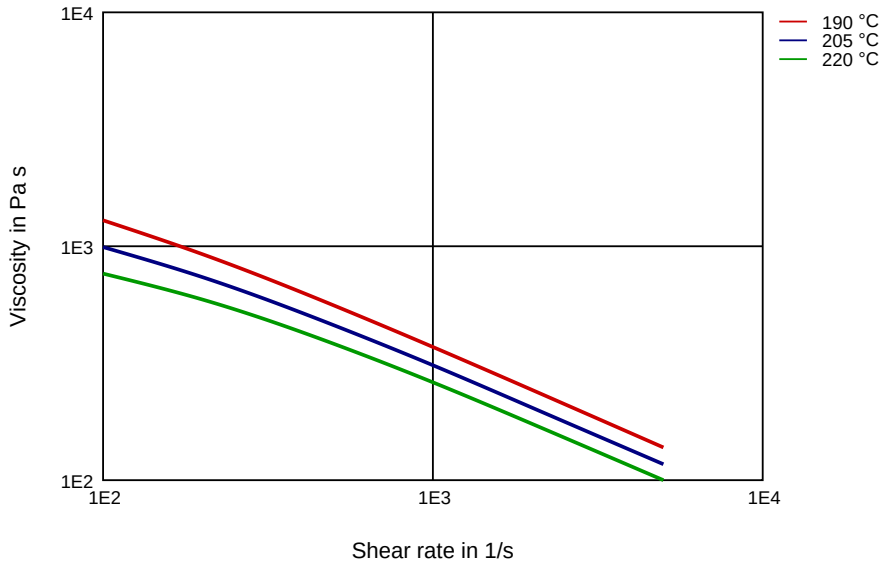
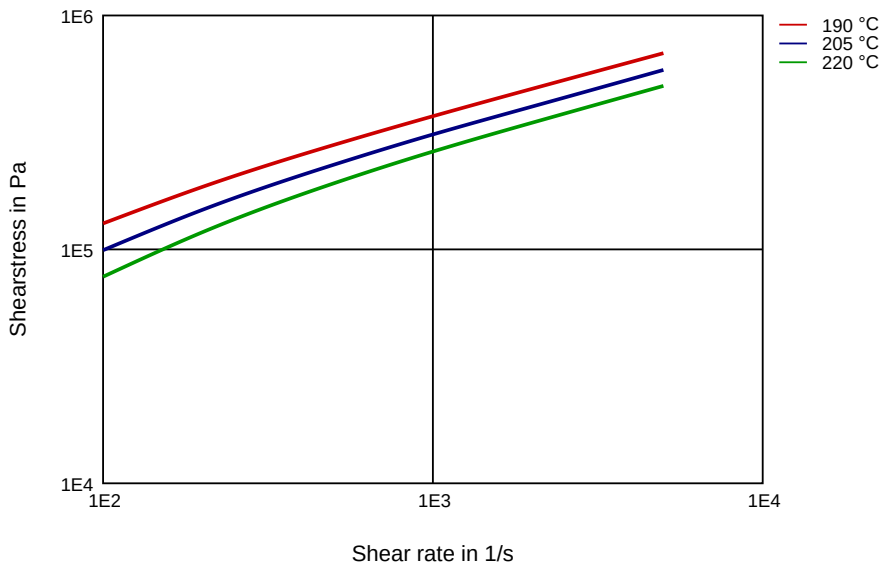
Diagrams

Viscosity-shear rate



Shearstress-shear rate



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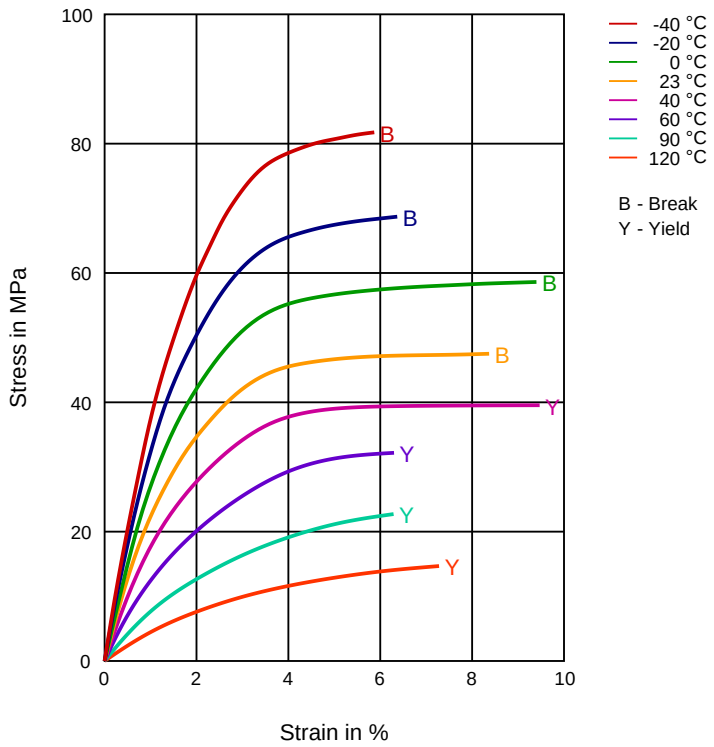
Stress-strain



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

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Europe/Middle East/Africa
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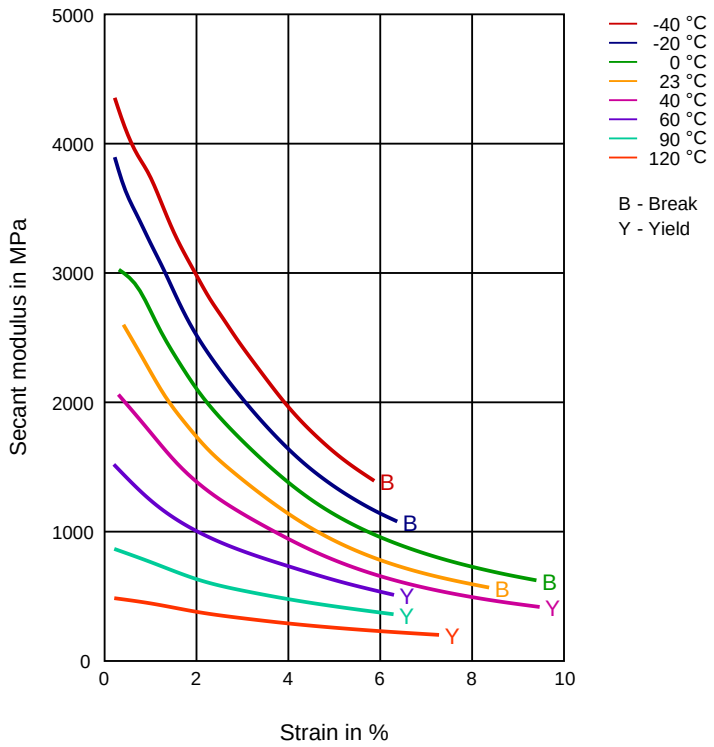
Secant modulus-strain



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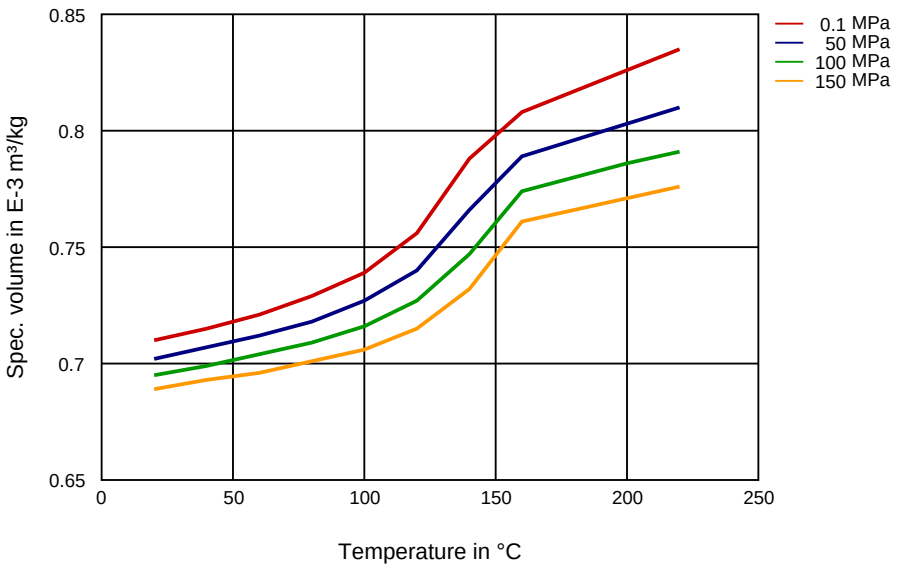
Specific volume-temperature (pvT)



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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