



Delrin® 300TE BK602

ACETAL RESIN

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® 300TE is a toughened medium-high viscosity acetal homopolymer for injection molding with very low VOC emissions for applications in automotive interiors.

Product information

Resin Identification	POM-I	ISO 1043
Part Marking Code	>POM-I<	ISO 11469

Rheological properties

Melt mass-flow rate	6 g/10min	ISO 1133
Melt mass-flow rate, Temperature	190 °C	ISO 1133
Melt mass-flow rate, Load	2.16 kg	ISO 1133
Moulding shrinkage, parallel	1.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.5 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2000 MPa	ISO 527-1/-2
Yield stress	54 MPa	ISO 527-1/-2
Yield strain	20 %	ISO 527-1/-2
Nominal strain at break	35 %	ISO 527-1/-2
Flexural Modulus	2000 MPa	ISO 178
Flexural Stress at 3.5%	55 MPa	ISO 178
Charpy notched impact strength, 23°C	15 kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 kJ/m²	ISO 179/1eA
Hardness, Rockwell, M-scale	69	ISO 2039-2
Hardness, Rockwell, R-scale	116	ISO 2039-2
Poisson's ratio	0.4	

Thermal properties

Temp. of deflection under load, 1.8 MPa	78 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	136 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 10N	172 °C	ISO 306
Coeff. of linear therm. expansion, parallel	110 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	120 E-6/K	ISO 11359-1/-2



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Flammability

FMVSS Class	B	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	46 ^[1] mm/min	ISO 3795 (FMVSS 302)
[1]: 2mm		

Other properties

Density	1370 kg/m ³	ISO 1183
Density of melt	1150 kg/m ³	

VDA Properties

Emissions	<2 mg/kg	VDA 275
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Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	4 - 8 h
Processing Moisture Content	≤0.05 %
Melt Temperature Optimum	205 °C
Min. melt temperature	200 °C
Max. melt temperature	210 °C
Max. screw tangential speed	0.2 m/s
Mold Temperature Optimum	50 °C
Min. mould temperature	40 °C
Max. mould temperature	60 °C
Hold pressure range	60 - 80 MPa
Hold pressure time	7.5 s/mm
Annealing time, optional	30 min/mm
Annealing temperature	160 °C

Extrusion

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

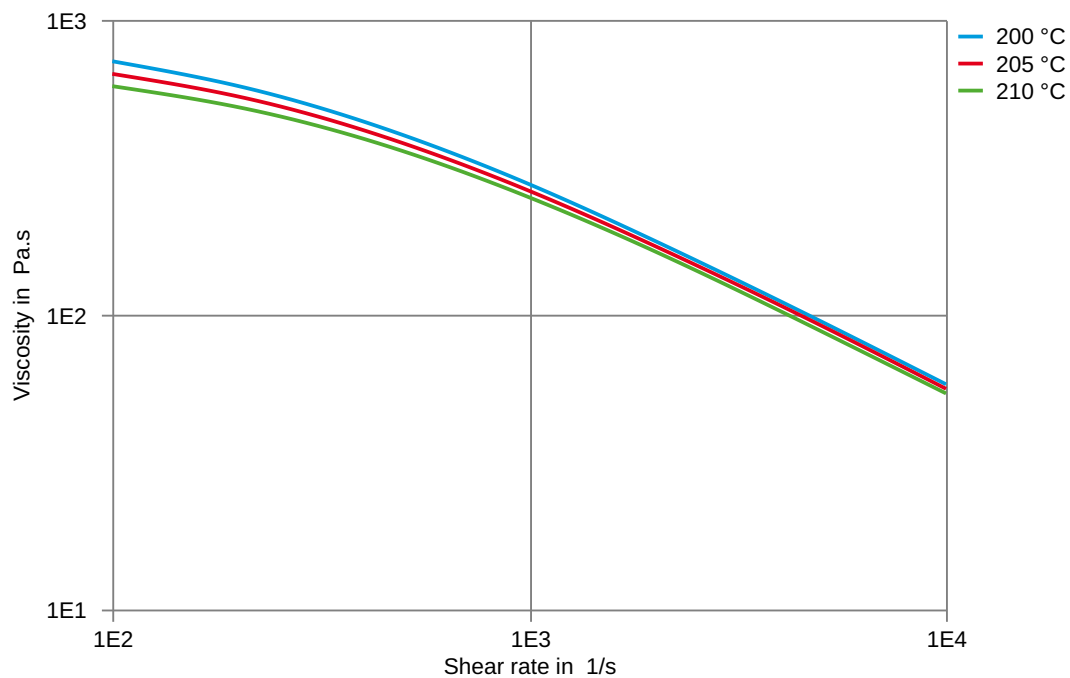
Additives	Release agent
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Viscosity-shear rate

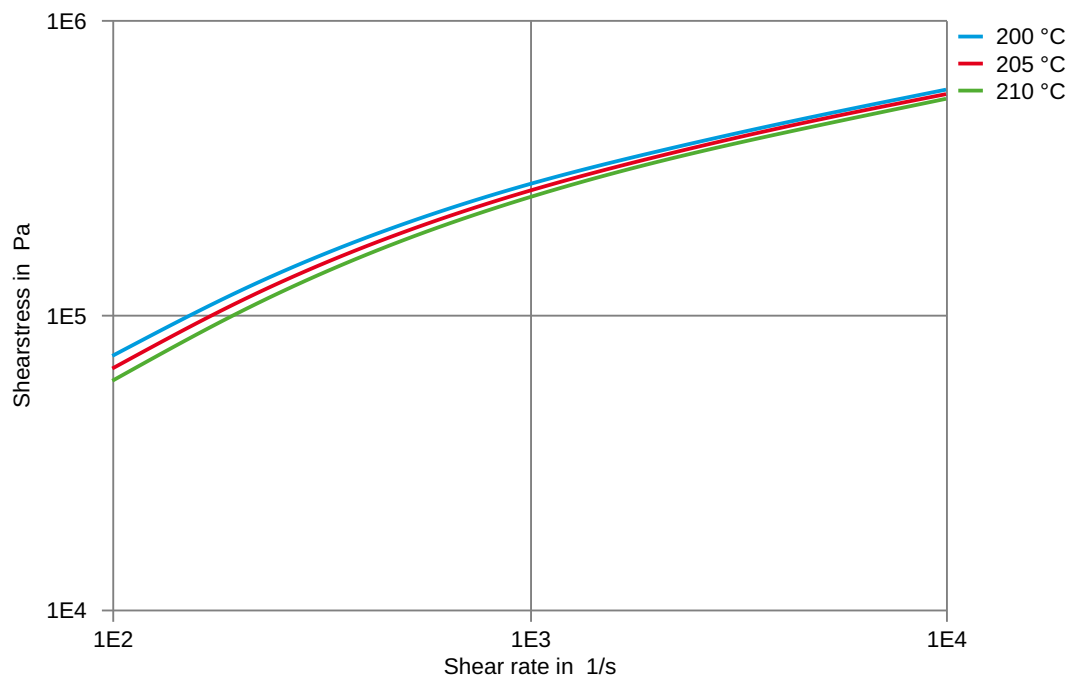




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Shearstress-shear rate





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Specific volume-temperature (pvT)

