

# DuPont™ Delrin® 100TE NC010

## 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® 100TE is a toughened, high viscosity acetal homopolymer with very low VOC emissions for applications in automotive interiors. Processing methods include injection molding.**

General information	Value	Unit	Test Standard
Resin Identification	POM-I	-	ISO 1043
Part Marking Code	POM-I	-	ISO 11469
Rheological properties	Value	Unit	Test Standard
Melt volume-flow rate	2	cm <sup>3</sup> /10min	ISO 1133
Temperature	190	°C	ISO 1133
Load	2.16	kg	ISO 1133
Melt mass-flow rate	2.2	g/10min	ISO 1133
Molding shrinkage, parallel	1.3	%	ISO 294-4, 2577
Molding shrinkage, normal	1.5	%	ISO 294-4, 2577
Mechanical properties	Value	Unit	Test Standard
Tensile Modulus	1850	MPa	ISO 527-1/-2
Yield stress	54	MPa	ISO 527-1/-2
Yield strain	25	%	ISO 527-1/-2
Nominal strain at break	>50	%	ISO 527-1/-2
Flexural Modulus	1850	MPa	ISO 178
Flexural Stress at 3.5%	51	MPa	ISO 178
Charpy impact strength			ISO 179/1eU
73°F	N	kJ/m <sup>2</sup>	
-22°F	N	kJ/m <sup>2</sup>	
Charpy notched impact strength			ISO 179/1eA
73°F	25	kJ/m <sup>2</sup>	
-22°F	14	kJ/m <sup>2</sup>	
Hardness, Rockwell, M-scale	64.6	-	ISO 2039-2
Hardness, Rockwell, R-scale	113	-	ISO 2039-2
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	71	°C	
65 psi	126	°C	
Vicat softening temperature, 90°F, 2 lbf	173	°C	ISO 306
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	42	mm/min	ISO 3795 (FMVSS 302)
Other properties	Value	Unit	Test Standard
Density	1370	kg/m <sup>3</sup>	ISO 1183
Density of melt	1160	kg/m <sup>3</sup>	-
VDA Properties	Value	Unit	Test Standard
Emissions	<2	mg/kg	VDA 275
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	80	°C	-
Drying Time, Dehumidified Dryer	2 - 4	h	-

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

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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	-
Hold pressure range	60 - 80	MPa	-
Hold pressure time	7.5	s/mm	-
Annealing time, optional	30	min/mm	-
Annealing temperature	160	°C	-
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	<ul style="list-style-type: none"><li>• Injection Molding</li><li>• Profile Extrusion</li></ul>	<ul style="list-style-type: none"><li>• Sheet Extrusion</li><li>• Other Extrusion</li></ul>
Delivery form	<ul style="list-style-type: none"><li>• Pellets</li></ul>	
Additives	<ul style="list-style-type: none"><li>• Lubricants</li></ul>	<ul style="list-style-type: none"><li>• Release agent</li></ul>
Regional Availability	<ul style="list-style-type: none"><li>• North America</li><li>• Europe</li></ul>	<ul style="list-style-type: none"><li>• Asia Pacific</li><li>• South and Central America</li><li>• Near East/Africa</li><li>• Global</li></ul>

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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