

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

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 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
Mechanical properties	Value	Unit	Test Standard
Tensile Modulus	1900	MPa	ISO 527-1/-2
Yield stress	53	MPa	ISO 527-1/-2
Yield strain	20	%	ISO 527-1/-2
Strain at Break, 23°C, 50mm/min	36	%	ISO 527-1/-2
Flexural Modulus	1900	MPa	ISO 178
Flexural Stress at 3.5%	56	MPa	ISO 178
Charpy notched impact strength, -30°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
Hardness, Rockwell, M-scale	69.3	-	ISO 2039-2
Hardness, Rockwell, R-scale	116	-	ISO 2039-2
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	178	°C	ISO 11357-1/-3
Temp. of deflection under load			ISO 75-1/-2
1.8 MPa	71	°C	
0.45 MPa	132	°C	
Vicat softening temperature, 50°C/h, 10N	172	°C	ISO 306
Coeff. of linear therm. expansion, parallel	120	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	125	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.21	W/(m K)	-
Spec. heat capacity of melt	2880	J/(kg K)	-
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	46	mm/min	ISO 3795 (FMVSS 302)
Other properties	Value	Unit	Test Standard
Density	1380	kg/m <sup>3</sup>	ISO 1183
Density of melt	1150	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	4 - 8	h	-
Processing Moisture Content	≤0.05	%	-
Melt Temperature Optimum	205	°C	-
Min. melt temperature	200	°C	-
Max. melt temperature	210	°C	-

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

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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	-
Ejection temperature	115	°C	-
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 Moulding</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></ul>	<ul style="list-style-type: none"><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 4mm (Hytrel® measured at 2 mm), IEC Electrical properties measured at 2mm, all ASTM properties measured at 3.2mm, and test temperatures are 23°C unless otherwise stated.

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