

DuPont™ Delrin® 500SC 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® 500SC is a masterbatch of 20% silicone fluid in Delrin® 500P. It is designed for cube-blending with any grade of Delrin® to provide lubrication to the surface of molded parts.

The below data reflect the properties of a 10:1 blend of Delrin® 500P NC010:Delrin® 500SC NC010.

General information	Value	Unit	Test Standard
Resin Identification	POM-SD	-	ISO 1043
Part Marking Code	POM-SD	-	ISO 11469
Mechanical properties	Value	Unit	Test Standard
Tensile Modulus	3000	MPa	ISO 527-1/-2
Yield stress	66	MPa	ISO 527-1/-2
Yield strain	21	%	ISO 527-1/-2
Nominal strain at break	40	%	ISO 527-1/-2
Flexural Modulus	2900	MPa	ISO 178
Flexural Stress at 3.5%	75	MPa	ISO 178
Charpy impact strength, 23°C	270	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	8.5	kJ/m ²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	176	°C	ISO 11357-1/-3
Temp. of deflection under load			ISO 75-1/-2
1.8 MPa	96	°C	
0.45 MPa	158	°C	
Coeff. of linear therm. expansion, parallel	100	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	110	E-6/K	
Normal, -40-23°C	110	E-6/K	
Parallel, -40-23°C	100	E-6/K	
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Other properties	Value	Unit	Test Standard
Density	1410	kg/m ³	ISO 1183

Characteristics

Processing	• Injection Moulding
Delivery form	• Pellets
Additives	• Lubricants
Regional Availability	• North America • Europe
	• Release agent
	• Asia Pacific
	• South and Central America
	• Near East/Africa
	• Global

Processing Texts

Injection molding

PROCESSING

As a first indication, please use molding parameters of the product with which Delrin® 500SC is blended.

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 (Hytrell® measured at 2 mm), IEC Electrical properties measured at 2mm, all ASTM properties

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

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measured at 3.2mm, and test temperatures are 23°C unless otherwise stated.

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