



# Delrin® FG500SC NC010

## 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® FG500SC is a masterbatch of 20% silicone fluid in Delrin® FG500P. It is designed for cube-blending with any grade of Delrin® for applications requiring low wear and friction against itself and other plastics. It has been developed for applications in contact with food.

The below data reflect the properties of a 10% Delrin® FG500SC NC010 letdown in Delrin® FG500P NC010 blend.

### Typical mechanical properties

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 <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	8.5 kJ/m <sup>2</sup>	ISO 179/1eA
Hardness, Rockwell, M-scale	84 -	ISO 2039-2
Hardness, Rockwell, R-scale	117 -	ISO 2039-2
Poisson's ratio	0.37 -	

### Thermal properties

Melting temperature, 10°C/min	176 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	96 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	158 °C	ISO 75-1/-2
CLTE, Parallel, -40-23°C	100 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, parallel	100 E-6/K	ISO 11359-1/-2
CLTE, Normal, -40-23°C	110 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	110 E-6/K	ISO 11359-1/-2



# Delrin<sup>®</sup> FG500SC NC010

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### Flammability

FMVSS Class	B -	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)

### Other properties

Density	1410 kg/m <sup>3</sup>	ISO 1183
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### Injection

Max. screw tangential speed	0.3 m/s
Hold pressure range	80 - 100 MPa

### Characteristics

Additives	Release agent
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### Additional Information

Injection molding

#### PROCESSING

As a first indication, please use molding parameters of the product with which Delrin<sup>®</sup> FG500SC is blended.

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