



# Delrin® FGDE7057 NC010 (PRELIMINARY)

## ACETAL RESIN

Delrin® FGDE7057 NC010 is a Nucleated Medium Viscosity Acetal Homopolymer with Improved Processing. It has been developed for applications in contact with food.

### Product information

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

### Rheological properties

Melt mass-flow rate	15 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	1.8 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.7 %	ISO 294-4, 2577

### Typical mechanical properties

Tensile Modulus	3400 MPa	ISO 527-1/-2
Yield stress	75 MPa	ISO 527-1/-2
Yield strain	12 %	ISO 527-1/-2
Nominal strain at break	27 %	ISO 527-1/-2
Charpy notched impact strength, 23°C	7 kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, 23°C	8 kJ/m <sup>2</sup>	ISO 180/1A
Poisson's ratio	0.37 -	

### Thermal properties

Melting temperature, 10°C/min	178 °C	ISO 11357-1/-3
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### Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10
UL recognition	yes -	UL 94
Burning Behav. at thickness h	HB class	IEC 60695-11-10
Thickness tested	0.75 mm	IEC 60695-11-10
UL recognition	yes -	UL 94
FMVSS Class	B -	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)



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### Other properties

Density	1420 kg/m <sup>3</sup>	ISO 1183
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### Emissions

Fogging, G-value (condensate)	0.1 mg	ISO 6452
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### Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.2 %
Melt Temperature Optimum	215 °C
Min. melt temperature	210 °C
Max. melt temperature	220 °C
Max. screw tangential speed	0.3 m/s
Mold Temperature Optimum	90 °C
Min. mould temperature	80 °C
Max. mould temperature	100 °C
Hold pressure range	80 - 100 MPa
Hold pressure time	7.5 s/mm
Annealing time, optional	30 min/mm
Annealing temperature	160 °C

### Additional Information

Injection molding                      Drying is recommended, but not necessary for newly opened packaging stored in a dry location.

Follow the drying guidelines above in the following cases:

- If moisture is above the Processing Moisture Content recommendation,
- When a resin container is damaged,
- When the material is not properly stored in a dry place at room temperature, or
- When packaging stays open for a significant time.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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