



Delrin® 911DP NC010

ACETAL RESIN

Product information

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

Rheological properties

Melt volume-flow rate	21 cm ³ /10min	ISO 1133
Melt mass-flow rate	24 g/10min	ISO 1133
Temperature	190 °C	ISO 1133
Load	2.16 kg	ISO 1133
Melt mass-flow rate, Temperature	190 °C	ISO 1133
Melt mass-flow rate, Load	2.16 kg	ISO 1133
Moulding shrinkage, parallel	1.9 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	3600 MPa	ISO 527-1/-2
Yield stress	75 MPa	ISO 527-1/-2
Yield strain	10 %	ISO 527-1/-2
Nominal strain at break	20 %	ISO 527-1/-2
Flexural Modulus	3300 MPa	ISO 178
Flexural Stress at 3.5%	90 MPa	ISO 178
Charpy impact strength, 23°C	160 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	150 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.5 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	6 kJ/m ²	ISO 179/1eA
Ball indentation hardness, H 961/30	175 ^[DS] MPa	ISO 2039-1
Poisson's ratio	0.36 -	

[DS]: Derived from similar grade

Thermal properties

Melting temperature, 10°C/min	178 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	108 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	163 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	100 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	100 E-6/K	ISO 11359-1/-2
RTI, electrical, 0.75mm	50 °C	UL 746B
RTI, electrical, 1.5mm	110 °C	UL 746B
RTI, electrical, 3mm	110 °C	UL 746B
RTI, impact, 0.75mm	50 °C	UL 746B
RTI, impact, 1.5mm	85 °C	UL 746B
RTI, impact, 3mm	90 °C	UL 746B
RTI, strength, 0.75mm	50 °C	UL 746B



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RTI, strength, 1.5mm	90 °C	UL 746B
RTI, strength, 3mm	95 °C	UL 746B

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	0.8 mm	IEC 60695-11-10
UL recognition	yes -	UL 94
FMVSS Class	B -	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	25 mm/min	ISO 3795 (FMVSS 302)

Other properties

Humidity absorption, 2mm	0.2 %	Sim. to ISO 62
Water absorption, 2mm	0.9 %	Sim. to ISO 62
Density	1420 kg/m ³	ISO 1183

VDA Properties

Emissions	<8 mg/kg	VDA 275
Fogging, F-value (refraction)	97 %	ISO 6452
Fogging, G-value (condensate)	0.1 mg	ISO 6452

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



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Extrusion

Drying Temperature	75 - 85 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.2 %
Melt Temperature Optimum	200 °C
Melt Temperature Range	195 - 205 °C

Characteristics

Additives

Release agent

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:

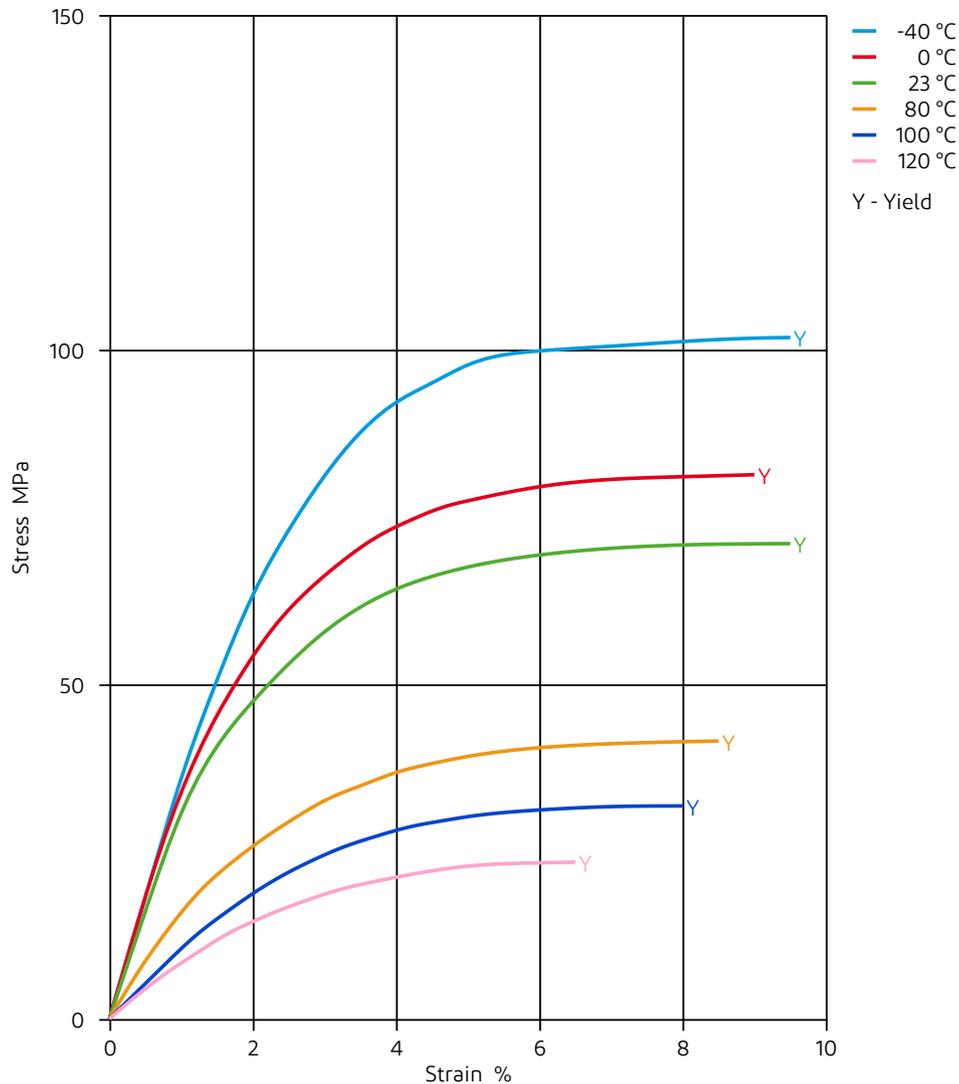
- If moisture is above the Processing Moisture Content recommendation,
- When a resin container is damaged,
- When the material is not properly stored in a dry place at room temperature, or
- When packaging stays open for a significant time.



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Stress-strain



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