

## HOSTAFORM® C 9021 LS - POM

### Description

POM copolymer Standard Injection molding type, UV-stabilized with UV-stabilizers.; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. FMVSS = Federal Motor Vehicle Safety Standard (USA)

Physical properties	Value	Unit	Test Standard
Density	1410	kg/m <sup>3</sup>	ISO 1183
Melt volume rate, MVR	8	cm <sup>3</sup> /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2,16	kg	ISO 1133
Molding shrinkage, parallel	2,0	%	ISO 294-4, 2577
Molding shrinkage, normal	1,8	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0,65	%	ISO 62
Humidity absorption, 23°C/50%RH	0,2	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2850	MPa	ISO 527-2/1A
Tensile stress at yield, 50mm/min	64	MPa	ISO 527-2/1A
Tensile strain at yield, 50mm/min	9	%	ISO 527-2/1A
Tensile nominal strain at break, 50mm/min	30	%	ISO 527-2/1A
Tensile creep modulus, 1h	2500	MPa	ISO 899-1
Tensile creep modulus, 1000h	1300	MPa	ISO 899-1
Charpy impact strength, 23°C	220 <sup>[P]</sup>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	220	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	6,5	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m <sup>2</sup>	ISO 179/1eA

P: Partial Break

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	104	°C	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	150	°C	ISO 306
Coeff. of linear therm expansion, parallel	1,1	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Relative permittivity, 100Hz	4	-	IEC 60250
Relative permittivity, 1MHz	4	-	IEC 60250
Dissipation factor, 100Hz	20	E-4	IEC 60250
Dissipation factor, 1MHz	50	E-4	IEC 60250
Volume resistivity	1E12	Ohm*m	IEC 60093
Surface resistivity	1E14	Ohm	IEC 60093
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	9988	-	Internal
Injection Molding, melt temperature	205	°C	ISO 294
Injection Molding, mold temperature	90	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294
Injection Molding, pressure at hold	90	MPa	ISO 294

### Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Necessary low maximum residual moisture content	0,15	%	-
Drying time	3 - 4	h	-
Drying temperature	100 - 120	°C	-
Temperature	Value	Unit	Test Standard
Hopper temperature	20 - 30	°C	-
Feeding zone temperature	60 - 80	°C	-

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Zone1 temperature	170 - 180	°C	-
Zone2 temperature	180 - 190	°C	-
Zone3 temperature	190 - 200	°C	-
Zone4 temperature	190 - 210	°C	-
Melt temperature	190 - 210	°C	-
<b>Pressure</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Back pressure max.	40	bar	-
<b>Speed</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Injection speed	slow-medium	-	-
<b>Screw Speed</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Screw speed diameter, 25mm	150	RPM	-
Screw speed diameter, 40mm	100	RPM	-
Screw speed diameter, 55mm	70	RPM	-

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### Other text information

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#### Pre-drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

#### Injection molding

Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

Melt temperature 190-210 °C  
Mould temperature 80-120 °C

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### Contact Information

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### General Disclaimer

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### Trademark

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## **HOSTAFORM® C 9021 LS - POM**

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