HOSTAFORM® C 13031 10/9022

Injection molding grade with moderate flow; about 10% higher strength; rigidity and hardness than C 13021. Laser welding grade.
Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 04-002 POM copolymer Easy flowing Injection molding type like C 13021, but with higher strength, rigidity and hardness over the entire permissible temperature range for HOSTAFORM; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Hostaform® C 13031 10/9022 has been specially formulated for laser welding applications. Ranges of applications: For molded parts with higher requirements to strength, rigidity und hardness.

Product information

Part Marking Code	POM		ISO 11469

Rheological properties

Melt volume-flow rate	12	cm^3/10min	ISO 1133

Typical mechanical properties

Tensile Modulus	3100	MPa	ISO 527-1/-2
Yield stress, 50mm/min	70	MPa	ISO 527-1/-2
Yield strain, 50mm/min	8	%	ISO 527-1/-2
Nominal strain at break	20	%	ISO 527-1/-2
Flexural Modulus	3000	MPa	ISO 178
Tensile creep modulus, 1h	2750	MPa	ISO 899-1
Tensile creep modulus, 1000h	1450	MPa	ISO 899-1
Charpy impact strength, 23°C	120	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	120	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	6	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m^2	ISO 179/1eA
Ball indentation hardness, H 358/30	156	MPa	ISO 2039-1

Thermal properties

Melting temperature, 10°C/min	170	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	112	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	120	E-6/K	ISO 11359-1/-2

Electrical properties

Relative permittivity, 100Hz	4		IEC 62631-2-1
Relative permittivity, 1MHz	4		IEC 62631-2-1
Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	50	E-4	IEC 62631-2-1
Electric strength	35	kV/mm	IEC 60243-1

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Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	1410	kg/m³	ISO 1183

Injection

Drying Temperature	100 - 120	°C
Drying Time, Dehumidified Dryer	3 - 4	h

Additional information

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

Processing Texts

Injection molding

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Mould temperature 80-120 °C

Injection molding Preprocessing

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

Injection molding Postprocessing

Conditioning e.g. moisturizing is not necessary.

Revised: 2023-05-26 Source: Celanese Materials Database