

medium flow, lasermarkable

Hostaform® C 9021 10/9005 is a nominal 9 melt flow rate acetal copolymer which is capable of being permanently marked by a laser. Parts molded from Hostaform® C 9021 10/9005 can be laser marked with barcodes, identification numbers, designs, 2-D symbology, etc.

#### Rheological properties

Melt volume-flow rate	8	cm <sup>3</sup> /10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.8	%	ISO 294-4, 2577
Typical machanical properties			

#### Typical mechanical properties

Tensile Modulus 285	0 MPa ISO 527-1/-2
Yield stress, 50mm/min 6	4 MPa ISO 527-1/-2
Yield strain, 50mm/min	9 % ISO 527-1/-2
Nominal strain at break	5 % ISO 527-1/-2
Flexural Modulus 270	0 MPa ISO 178
Tensile creep modulus, 1h 250	0 MPa ISO 899-1
Tensile creep modulus, 1000h	0 MPa ISO 899-1
Charpy impact strength, 23°C 180	P] kJ/m <sup>2</sup> ISO 179/1eU
Charpy impact strength, -30 °C	0 kJ/m <sup>2</sup> ISO 179/1eU
Charpy notched impact strength, 23°C 5.	5 kJ/m <sup>2</sup> ISO 179/1eA
Charpy notched impact strength, -30°C	5 kJ/m <sup>2</sup> ISO 179/1eA
[P]: Partial Break	

### Thermal properties

Melting temperature, 10 °C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 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	110	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.155	W/(m K)	Internal
Eff. thermal diffusivity	4.85E-8	m²/s	Internal
Spec. heat capacity of melt	2210	J/(kg K)	Internal

### Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	UL 94
Thickness tested	1.5	mm	UL 94
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.00	mm	UL 94
UL recognition	yes		UL 94

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Internal

## HOSTAFORM® C 9021 10/9005

#### **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
Volume resistivity	1E12 Ohm.m	IEC 62631-3-1
Surface resistivity	1E14 Ohm	IEC 62631-3-2
Electric strength	35 kV/mm	IEC 60243-1
Comparative tracking index	PLC 0 PLC	UL 746A

### 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
Density of melt	1200 kg/m <sup>3</sup>	Internal

### Injection

Drying Temperature	100 - 120	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	0.15	%
Screw tangential speed	0.2 - 0.21	m/s
Max. mould temperature	80 - 120	°C
Back pressure	4	MPa
Injection speed	slow-medium	
Ejection temperature	140	°C

#### Characteristics

Additives Release agent

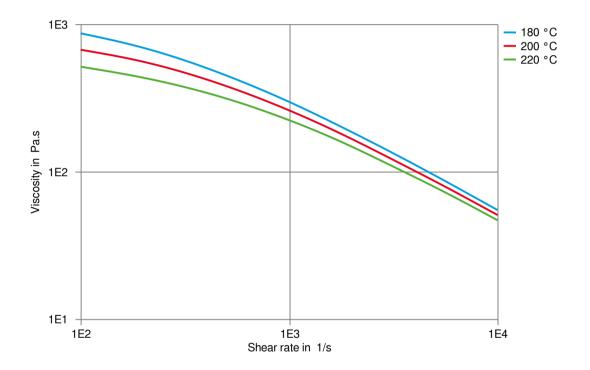
#### Additional information

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

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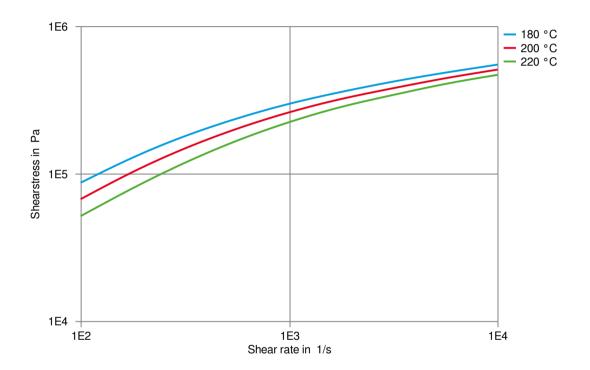
### Viscosity-shear rate



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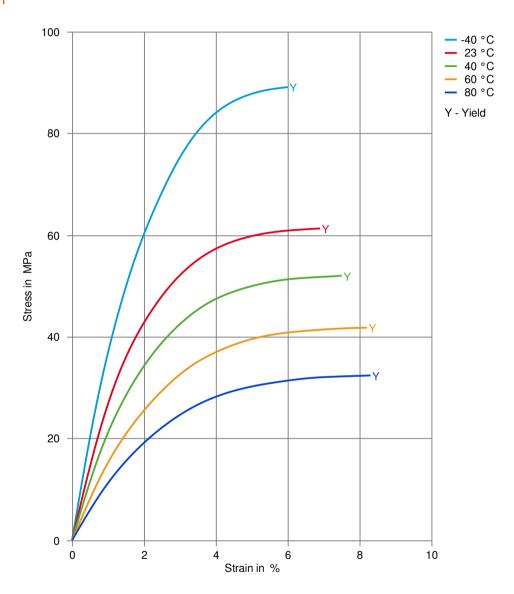
#### Shearstress-shear rate



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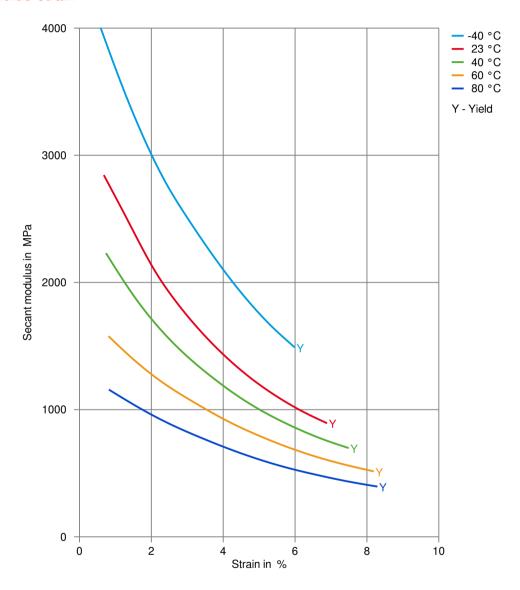
#### Stress-strain



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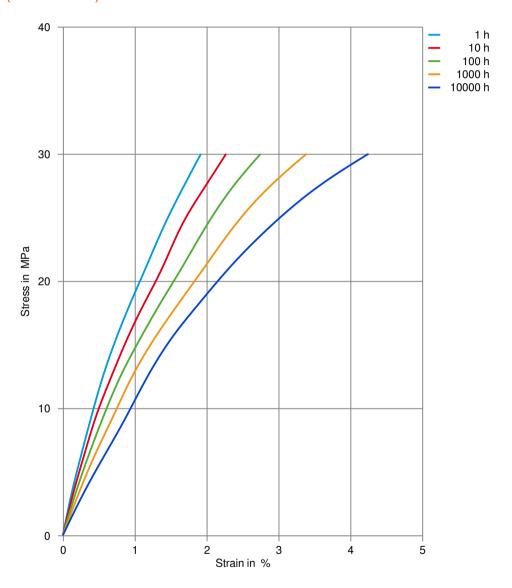
#### Secant modulus-strain



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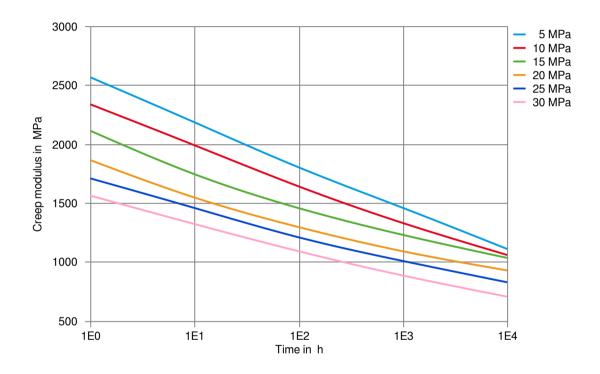
### Stress-strain (isochronous) 23°C



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Creep modulus-time 23°C



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**Processing Texts** 

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.

Longer pre-drying times/storage The product can then be stored in standard conditions until processed.

Injection molding Standard injection moulding machines with three phase (15 to 25 D)

plasticating screws will fit.

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.

layer / 5 to 6 flours) is recommende

Max. Water content 0,2 %

Injection molding Postprocessing Conditioning e.g. moisturizing is not necessary.

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Revised: 2023-02-23 Source: Celanese Materials Database

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