

#### Low Emission

POM copolymer Product with reduced emissions especially for automotive interior application. Good properties of the standard-injection molding grades like high rigidity, hardness and toughness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation are maintained Emission according to VDA 275 < 10 mg/kg (natural grades) Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. FDA = Food and Drug Administration (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA)

ECO-B: Hostaform® ECO-B is a POM-Copolymer with the same properties and performance as standard grades but produced with sustainability in mind. Using a mass-balance approach, biogenic feedstocks are used to offset the use of fossil-based raw materials and decrease greenhouse gas emissions. The process is audited and certified according to the ISCC Plus mass balance approach.

#### **Rheological properties**

Melt volume-flow rate8Temperature190Load2.16Moulding shrinkage, parallel2.0Moulding shrinkage, normal1.9	kg % ISO 294-4, 2577
Typical mechanical properties	
Tensile Modulus 2850	MPa ISO 527-1/-2
	MPa ISO 527-1/-2
Yield strain, 50mm/min 9	% ISO 527-1/-2
Nominal strain at break 30	% ISO 527-1/-2
Flexural Modulus 2700	MPa ISO 178
Tensile creep modulus, 1h2500	MPa ISO 899-1
Tensile creep modulus, 1000h 1300	
Charpy impact strength, 23°C 220 <sup>[P]</sup>	
	kJ/m <sup>2</sup> ISO 179/1eU
	kJ/m <sup>2</sup> ISO 179/1eA
	kJ/m <sup>2</sup> ISO 179/1eA
,	MPa ISO 2039-1
[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	
Vicat softening temperature, 50 °C/h, 50N 150	°C ISO 306
- · ·	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	
Spec. heat capacity of melt 2210	J/(kg K) Internal



### HOSTAFORM<sup>®</sup> C 9021 XAP<sup>®</sup> ECO-B

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	Internal

### **Characteristics**

Additives

Release agent

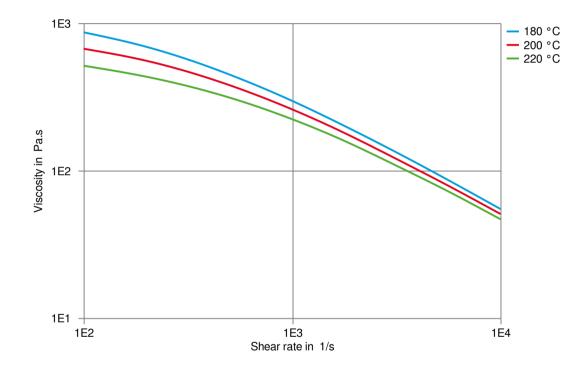
#### Additional information

Injection molding

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

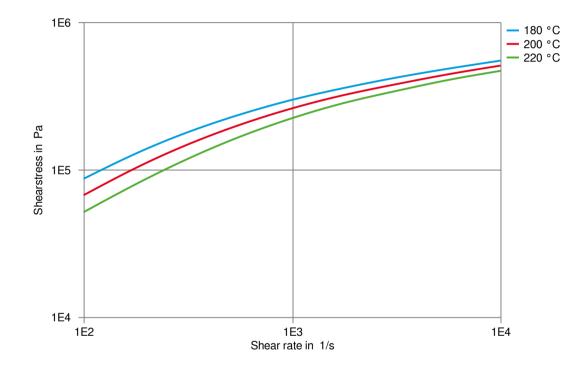


### Viscosity-shear rate



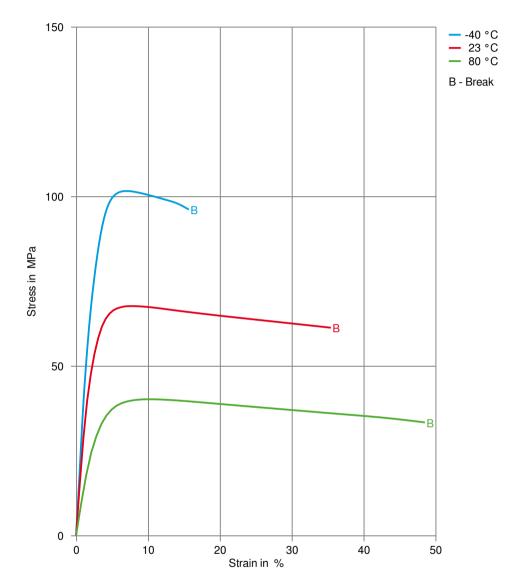


#### Shearstress-shear rate



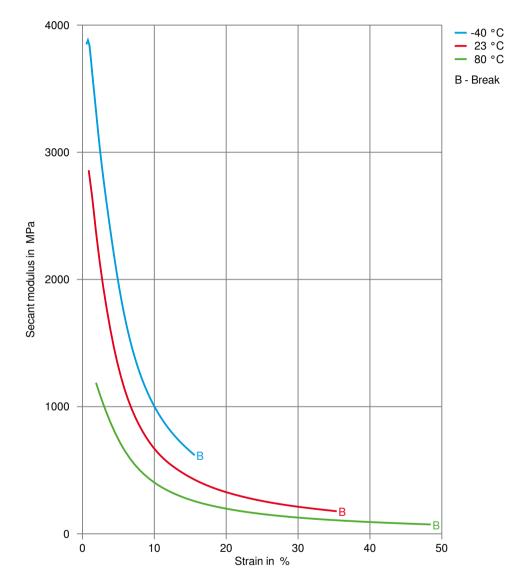


#### Stress-strain



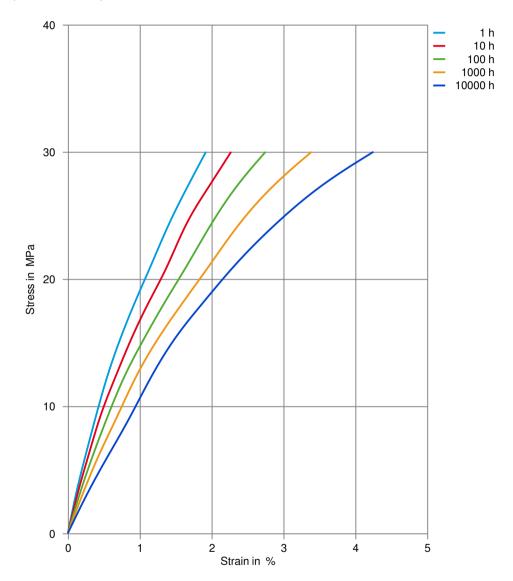


### Secant modulus-strain



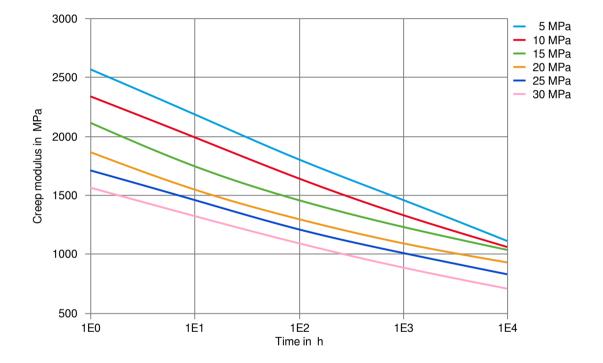


### Stress-strain (isochronous) 23°C



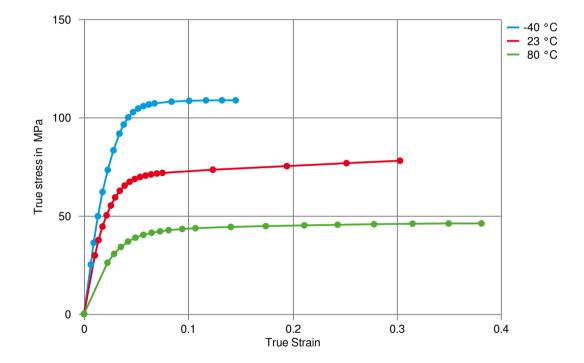


### Creep modulus-time 23°C





True stress-strain





Processing Texts	
Pre-drying	It is normally not necessary to dry HOSTAFORM. However, should there be surface moisture (condensate) on the molding compound as a result of incorrect storage, drying is required. A circulating air drying cabinet can be used for this purpose if the granul
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	To achive low emission values pre drying using a recirculating air dryer (100 to 120 $^\circ$ C / max. 40 mm layer / 3 to 6 hours) is recommended.
	Max. Water content 0,1 %
Injection molding Postprocessing	Conditioning e.g. moisturizing is not necessary.

#### Printed: 2023-08-07

Revised: 2023-08-03 Source: Celanese Materials Database

Page: 10 of 10

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design not intended for use in medical or dental implants. Regardless of any such product expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials the lowest that texist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and achere to the m

© 2023 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.