

#### Low Emission

POM copolymer Stiff-flowing type for injection molding and extrusion with high impact toughness and good tracking resistance over a high range of temperature; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Ranges of applications: injection molding thickwalled, void-free molded parts extrusion e.g. for boards and pipes. Material is available in natural and black With reduced emissions: Emission according to VDA 275 < 10 mg/kg Burning rate according to FMVSS 302 < 100 mm/min (1 mm thickness) Monomers and additives are listed in EU-Regulation (EU) 10/2011 Hostaform® C 2521 XAP® natural is FDA compliant according to 21 CFR 177.2470 FDA = Food and Drug Administration (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA)

### Rheological properties

Melt volume-flow rate	2.5 cm <sup>3</sup> /10min	ISO 1133
Temperature	190 °C	
Load	2.16 kg	
Moulding shrinkage, parallel	2.1 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

### Typical mechanical properties

Tensile Modulus	2600	MPa	ISO 527-1/-2
Yield stress, 50mm/min	62	MPa	ISO 527-1/-2
Yield strain, 50mm/min	9	%	ISO 527-1/-2
Nominal strain at break	32	%	ISO 527-1/-2
Flexural Modulus	2500	MPa	ISO 178
Tensile creep modulus, 1h	2300	MPa	ISO 899-1
Tensile creep modulus, 1000h		MPa	ISO 899-1
Charpy impact strength, 23°C	250 <sup>[P]</sup>	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	250	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	8.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	7	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 358/30	144	MPa	ISO 2039-1
[P]: Partial Break			

#### Thermal properties

Melting temperature, 10 ° C/min	165	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	101	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	151	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.155	W/(m K)	Internal
Spec. heat capacity of melt	2210	J/(kg K)	Internal

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Internal

# HOSTAFORM® C 2521 XAP®

## 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

### **Electrical properties**

Relative permittivity, 100Hz	4	IEC 62631-2-1
Relative permittivity, 1MHz	4	IEC 62631-2-1
Dissipation factor, 100Hz	15 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

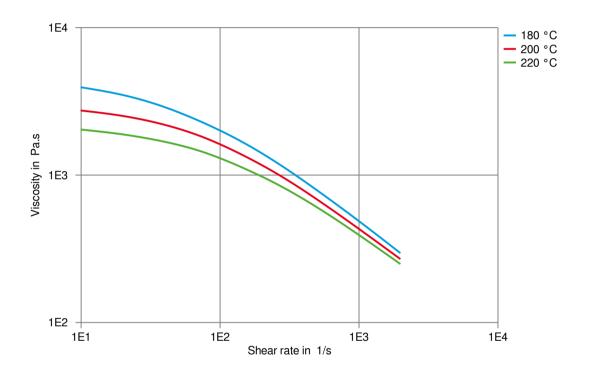
### Characteristics

Additives Release agent

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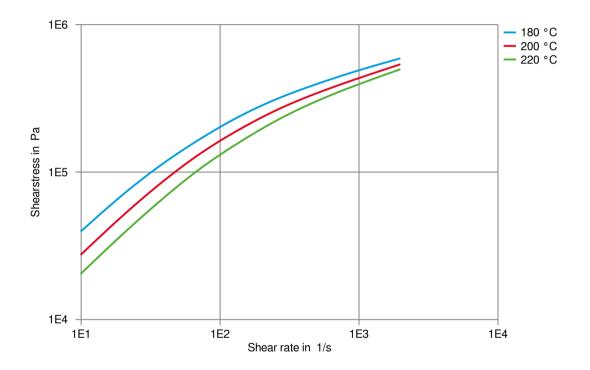
## Viscosity-shear rate



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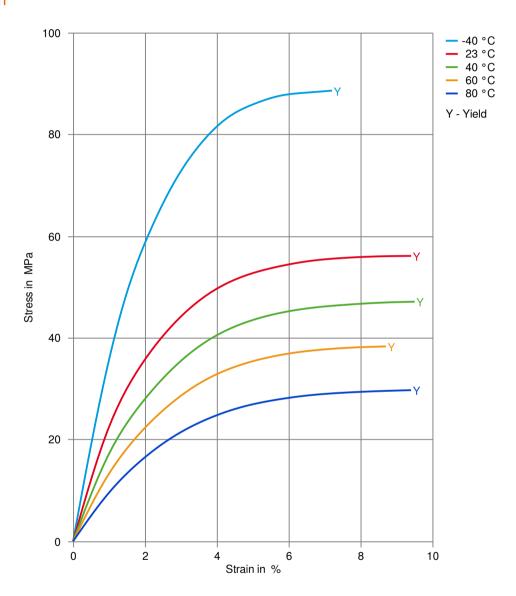
### Shearstress-shear rate



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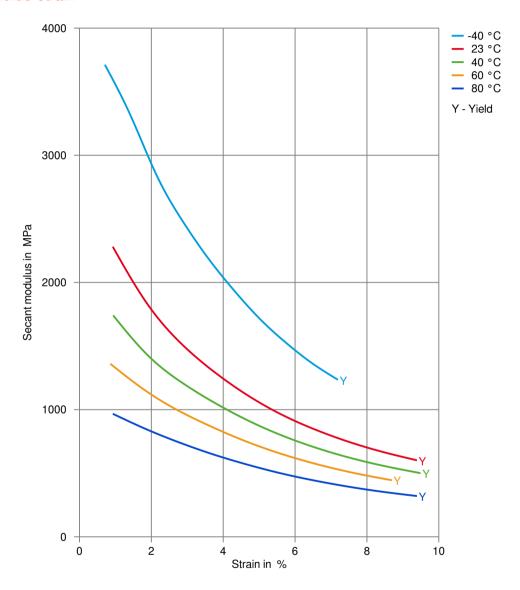
#### Stress-strain



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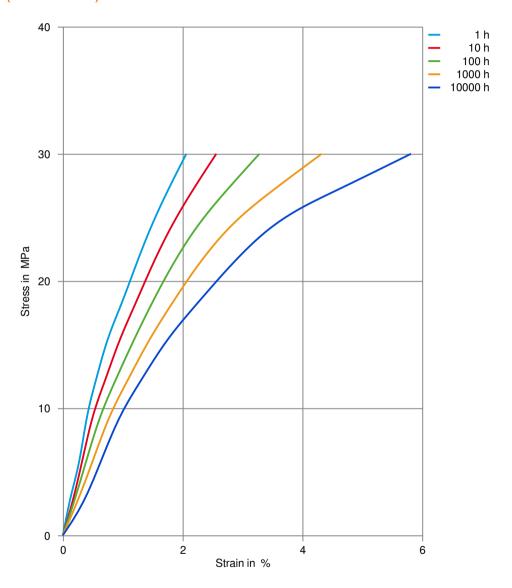
### Secant modulus-strain



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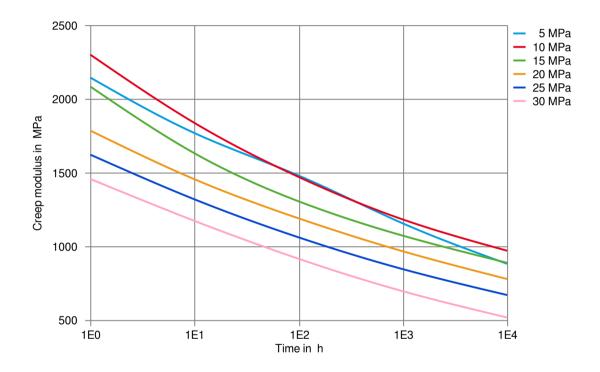
## Stress-strain (isochronous) 23°C



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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.

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

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 conditions and environmental exposure. Other than those products 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 should not be construed 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 to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, pr

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