

## Product Texts

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 03-002 POM copolymer Medium viscosity molding grade with 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. Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 UL-registration for all colours and a thickness more than 1.5 mm as UL 94 HB, temperature index UL 746 B electrical 110 °C, mechanical 90 °C. Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. Ranges of applications: automotive engineering, precision engineering, electric and electronic industry, domestic appliances. FDA = Food and Drug Administration (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA) UL = Underwriters Laboratories (USA)

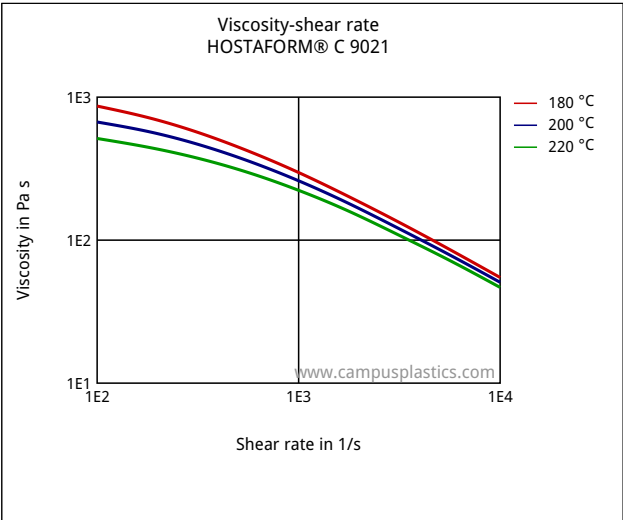
| Rheological properties                       | Value | Unit                   | Test Standard   |
|--|-------|------------------------|-----------------|
| Melt volume-flow rate, MVR                   | 8     | cm <sup>3</sup> /10min | ISO 1133        |
| Temperature                                  | 190   | °C                     | ISO 1133        |
| Load   | 2.16  | kg                     | ISO 1133        |
| Molding shrinkage, parallel                  | 2.0   | %                      | ISO 294-4, 2577 |
| Molding shrinkage, normal                    | 1.9   | %                      | ISO 294-4, 2577 |
| Mechanical properties                        | Value | Unit                   | Test Standard   |
| Tensile modulus                              | 2850  | MPa                    | ISO 527-1/-2    |
| Yield stress                                 | 64    | MPa                    | ISO 527-1/-2    |
| Yield strain                                 | 9     | %                      | ISO 527-1/-2    |
| Nominal strain at break                      | 30    | %                      | ISO 527-1/-2    |
| Tensile creep modulus, 1h                    | 2500  | MPa                    | ISO 899-1       |
| Tensile creep modulus, 1000h                 | 1300  | MPa                    | ISO 899-1       |
| Charpy impact strength, +23°C                | 220P  | 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     |
| Thermal properties                           | Value | Unit                   | Test Standard   |
| Melting temperature, 10°C/min                | 166   | °C                     | ISO 11357-1/-3  |
| Temp. of deflection under load, 1.80 MPa     | 104   | °C                     | ISO 75-1/-2     |
| Temp. of deflection under load, 0.45 MPa     | 160   | °C                     | ISO 75-1/-2     |
| 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  |
| Burning behavior at 1.5 mm nominal thickness | HB    | class                  | IEC 60695-11-10 |
| Thickness tested (1.5)                       | 1.5   | mm                     | IEC 60695-11-10 |
| Burning behavior at thickness h              | HB    | class                  | IEC 60695-11-10 |
| Thickness tested (h)                         | 3.0   | mm                     | IEC 60695-11-10 |
| Yellow Card available                        | Yes   | -                      | -               |
| Electrical properties                        | Value | Unit                   | Test Standard   |
| 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                   | 600   | -                      | IEC 60112       |

**HOSTAFORM® C 9021 - POM**  
**Celanese**

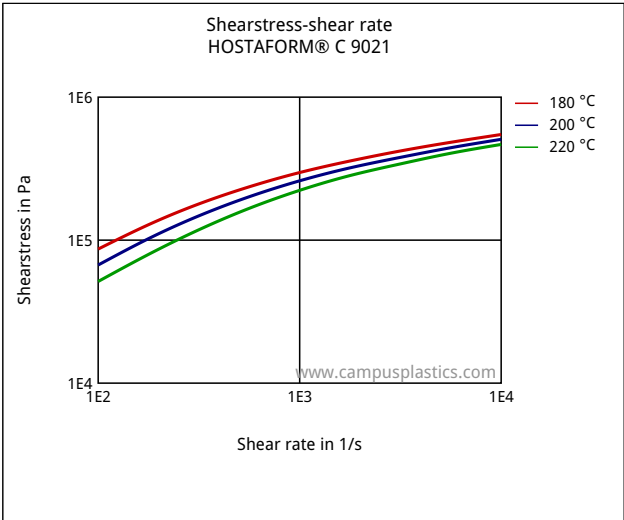
| Other properties                   | Value | Unit    | Test Standard  |
|------------------------------------|-------|---------|----------------|
| Water absorption                   | 0.65  | %       | Sim. to ISO 62 |
| Humidity absorption                | 0.2   | %       | Sim. to ISO 62 |
| Density                            | 1410  | kg/m³   | ISO 1183       |
| Rheological calculation properties | Value | Unit    | Test Standard  |
| Thermal conductivity of melt       | 0.155 | W/(m K) | -              |
| Ejection temperature               | 127   | °C      | -              |

**Diagrams**

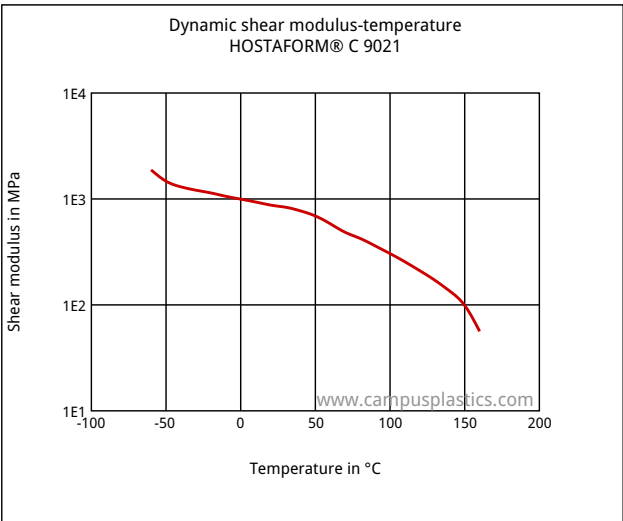
**Viscosity-shear rate**



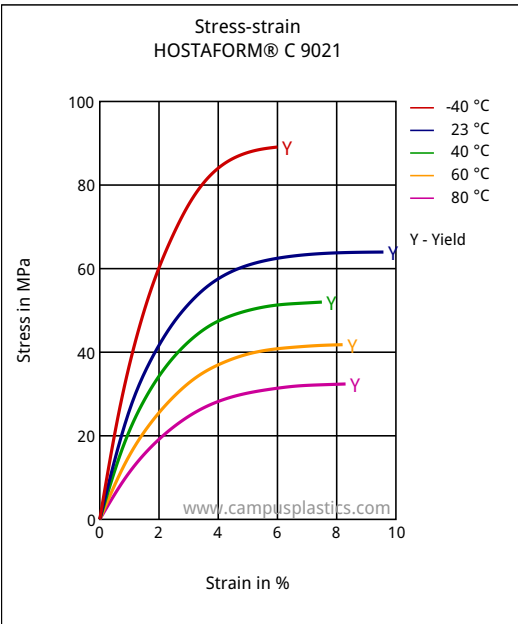
**Shearstress-shear rate**



**Dynamic shear modulus-temperature**



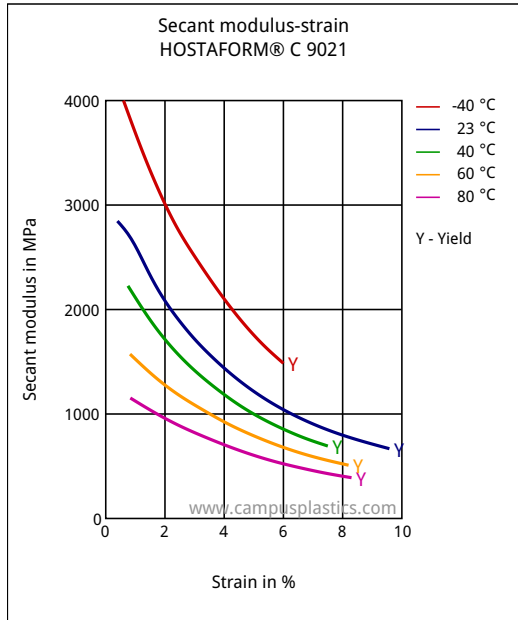
**Stress-strain**



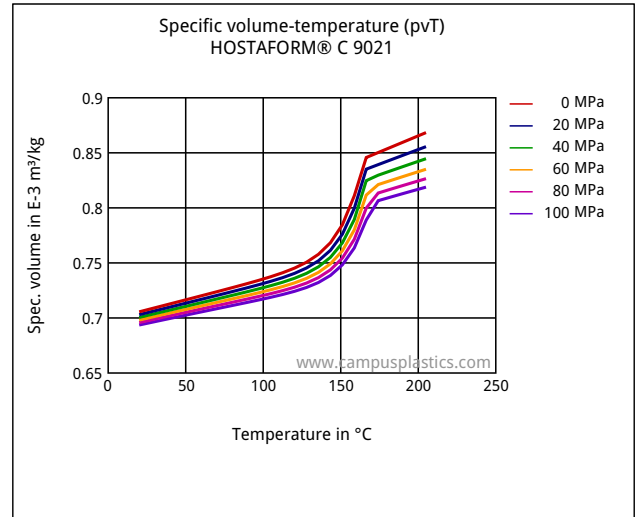
# HOSTAFORM® C 9021 - POM

## Celanese

### Secant modulus-strain



### Specific volume-temperature (pvT)



### Characteristics

#### Processing

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Blow Molding

#### Delivery form

Pellets

### Other text information

#### 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 %

##### Processing

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

##### Postprocessing

Conditioning e.g. moisturizing is not necessary.

#### Film extrusion

##### Preprocessing

#### Additives

Release agent

#### Regional Availability

North America, Europe, Asia Pacific, South and Central America

## **HOSTAFORM® C 9021 - POM**

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Max. Water content 0,2 %

#### **Processing**

Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

#### **Postprocessing**

Conditioning e.g. moisturizing is not necessary.

In case of very thick wall thickness profiles after-annealing it is recommended to reduce internal stress.

Annealing temperature 130-140 °C  
Annealing time 10 min/mm thickness

#### **Other extrusion**

##### **Preprocessing**

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

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Max. Water content 0,2 %

#### **Processing**

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Melt temperature 180-190 °C

#### **Postprocessing**

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#### **Sheet extrusion**

##### **Preprocessing**

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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. Colorants or other additives may cause significant variations in data values. Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing 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, 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 adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

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