Celanese
The chemistry inside innovation™

HOSTAFORM® CKX-5768 - POM

Experimental Grade. Please contact your Celanese representative for further information.

Description

Chemical abbreviation according to ISO 1043-1: POM-HI Molding compound ISO 9988- POM-K, M-GNPR, 05-001 POM copolymer, modified Easy flowing, elastomer-containing injection molding type based on HOSTAFORM C 27021 with high toughness, and slightly lower hardness, rigidity and chemical resistance than the basic type; high resistance to thermal and oxidative degradation. UL-registration in natural and a thickness more than 1.57 mm as UL 94 HB. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm thickness. Ranges of applications: For thin-walled molded parts with high energy-absorbing capacity. UL = Underwriters Laboratories (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA)

Physical properties	Value	Unit	Test Standard
Density	**1400**	kg/m³	ISO 1183
Melt flow rate, MFR	**52**	g/10min	ISO 1133
MFR temperature	**190**	°C	ISO 1133
MFR load	**2.16**	kg	ISO 1133

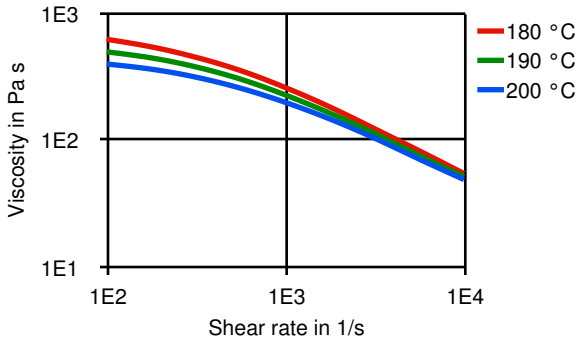
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	**2528**	MPa	ISO 527-2/1A
Tensile stress at yield, 50mm/min	**50**	MPa	ISO 527-2/1A
Tensile nominal strain at break, 50mm/min	**40**	%	ISO 527-2/1A
Flexural modulus, 23°C	**2400**	MPa	ISO 178
Flexural strength, 23°C	**61**	MPa	ISO 178
Charpy impact strength, 23°C	**171**[P]	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	**5.3**	kJ/m²	ISO 179/1eA

P: Partial Break

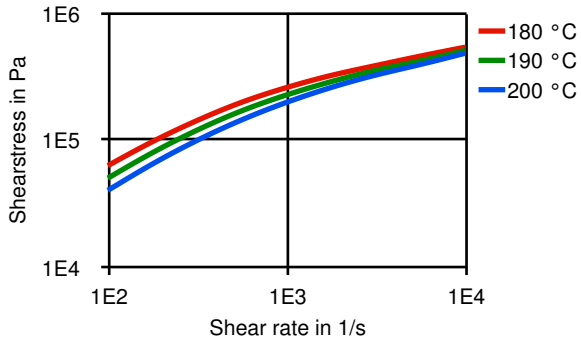
Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	**94**	°C	ISO 75-1, -2

Diagrams

Viscosity-shear rate



Shearstress-shear rate



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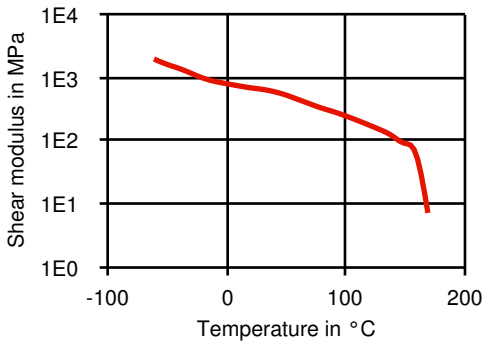
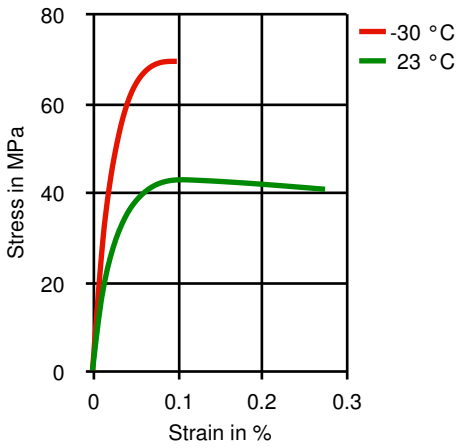
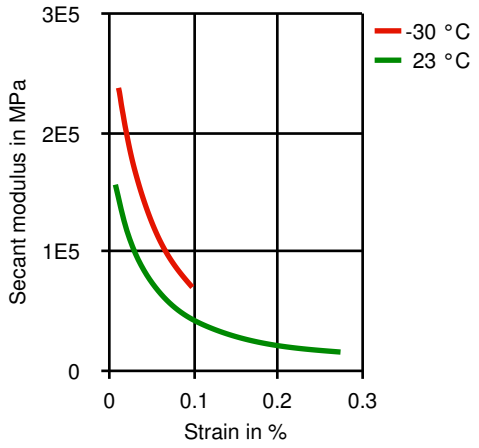
Dynamic Shear modulus-temperature



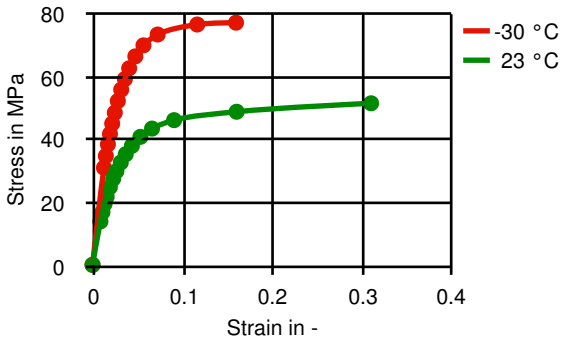
Stress-strain



Secant modulus-strain



True Stress-strain



Typical injection moulding processing conditions

Pre Drying	**Value**	**Unit**	**Test Standard**
Necessary low maximum residual moisture content	**0.15**	%	-
Drying time	**3 - 4**	h	-
Drying temperature	**100 - 120**	°C	-
Temperature	**Value**	**Unit**	**Test Standard**
Hopper temperature	**20 - 30**	°C	-
Feeding zone temperature	**60 - 80**	°C	-
Zone1 temperature	**170 - 180**	°C	-
Zone2 temperature	**180 - 190**	°C	-
Zone3 temperature	**190 - 200**	°C	-
Zone4 temperature	**190 - 200**	°C	-
Nozzle temperature	**190 - 200**	°C	-
Melt temperature	**190 - 200**	°C	-
Mold temperature	**60 - 70**	°C	-
Hot runner temperature	**190 - 200**	°C	-
Pressure	**Value**	**Unit**	**Test Standard**
Back pressure max.	**20**	bar	-
Speed	**Value**	**Unit**	**Test Standard**
Injection speed	**slow-medium**	-	-
Screw Speed	**Value**	**Unit**	**Test Standard**
Screw speed diameter, 25mm	**150**	RPM	-
Screw speed diameter, 40mm	**100**	RPM	-
Screw speed diameter, 55mm	**70**	RPM	-

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Other text information

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.

Characteristics

Product Categories	Delivery Form
Impact modified	Pellets
Processing	**Additives**
Injection molding	Release agent

General Disclaimer

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. 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. The products mentioned herein are not intended for use in medical or dental implants.

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