

HOSTAFORM® S 27063 | POM | Impact Modified

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 higher impact strength 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 higher energy-absorbing capacity

UL = Underwriters Laboratories (USA)
FMVSS = Federal Motor Vehicle Safety Standard (USA)

Physical properties	Value	Unit	Test Standard
Density	1390	kg/m ³	ISO 1183
Melt volume rate (MVR)	20	cm ³ /10min	ISO 1133
MVR test temperature	190	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133
Mold shrinkage - parallel	1.9	%	ISO 294-4
Mold shrinkage - normal	1.8	%	ISO 294-4
Water absorption (23°C-sat)	0.65	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	2200	MPa	ISO 527-2/1A
Tensile stress at yield (50mm/min)	54	MPa	ISO 527-2/1A
Tensile strain at yield (50mm/min)	9	%	ISO 527-2/1A
Nominal strain at break (50mm/min)	30	%	ISO 527-2/1A
Tensile creep modulus (1h)	1850	MPa	ISO 899-1
Tensile creep modulus (1000h)	1050	MPa	ISO 899-1
Flexural modulus (23°C)	2100	MPa	ISO 178
Charpy impact strength @ 23°C	140	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	90	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	9	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	6	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	166	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	84	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	1.2	E-4/°C	ISO 11359-2
Flammability @ 1.6mm nom. thickn.	HB	class	UL94
thickness tested (1.6)	1.57	mm	UL94
UL recognition (1.6)	UL	-	UL94

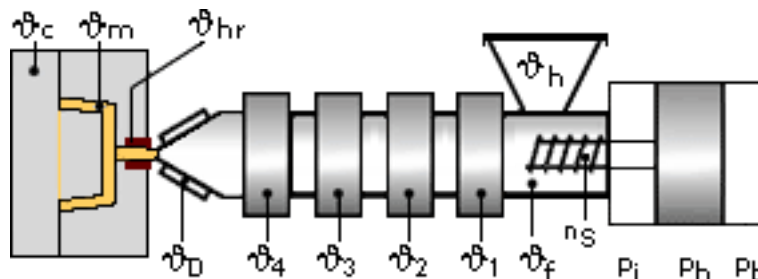
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Thermal properties	Value	Unit	Test Standard
Flammability at thickness h	HB	class	UL94
thickness tested (h)	3.17	mm	UL94
UL recognition (h)	UL	-	UL94

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 100 Hz	4.2	-	IEC 60250
Relative permittivity - 1 MHz	4.2	-	IEC 60250
Dissipation factor - 100 Hz	50	E-4	IEC 60250
Dissipation factor - 1 MHz	150	E-4	IEC 60250
Volume resistivity	1E11	Ohm*m	IEC 60093
Surface resistivity	1E13	Ohm	IEC 60093
Electric strength	28	kV/mm	IEC 60243-1
Comparative tracking index CTI	600	-	IEC 60112

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	9988	-	Internal

Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.15%

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.

The product can then be stored in standard conditions until processed.

Drying time: 3 - 4 h

Drying temperature: 100 - 120 °C

Temperature:

	ϑ _{Manifold}	ϑ _{Mold}	ϑ _{Melt}	ϑ _{Nozzle}	ϑ _{Zone4}	ϑ _{Zone3}	ϑ _{Zone2}	ϑ _{Zone1}	ϑ _{Feed}	ϑ _{Hopper}
min (°C)	190	60	190	190	190	190	180	170	60	20
max (°C)	200	70	200	200	200	200	190	180	80	30

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Pressure:

	Inj press	Hold press	Back pressure
min (bar)	600	600	0
max (bar)	1200	1200	20

Speed:

Injection speed: slow-medium

Screw speed

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	-	150	100	70	-

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General Disclaimer

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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.

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