

HOSTAFORM® C 13021 XAP²™ | POM | Unfilled

Description

POM copolymer
Medium flow injection molding grade with reduced emissions especially for automotive interior application.

Burning rate according to FMVSS 302 < 100 mm/min (1 mm thickness)

Emission according to VDA 275 < 2 mg/kg (natural grades)
Emission according to VDA 275 < 5 mg/kg (colored grades)

Preliminary Datasheet

Physical properties	Value	Unit	Test Standard
Density	1410	kg/m ³	ISO 1183
Melt volume rate (MVR)	12	cm ³ /10min	ISO 1133
MVR test temperature	190	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133
Water absorption (23°C-sat)	0.65	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	2750	MPa	ISO 527-2/1A
Tensile stress at yield (50mm/min)	64	MPa	ISO 527-2/1A
Tensile strain at yield (50mm/min)	9	%	ISO 527-2/1A
Nominal strain at break (50mm/min)	25	%	ISO 527-2/1A
Tensile creep modulus (1h)	2400	MPa	ISO 899-1
Tensile creep modulus (1000h)	1200	MPa	ISO 899-1
Flexural modulus (23°C)	2700	MPa	ISO 178
Charpy impact strength @ 23°C	150.0	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	140.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	6.0	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	6.0	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	166	°C	ISO 11357-1,-2,-3
Coeff.of linear therm. expansion (parallel)	1.2	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	1.2	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 100 Hz	4	-	IEC 60250
Relative permittivity - 1 MHz	4	-	IEC 60250
Dissipation factor - 100 Hz	20	E-4	IEC 60250
Dissipation factor - 1 MHz	50	E-4	IEC 60250
Volume resistivity	1E12	Ohm*m	IEC 60093
Surface resistivity	1E14	Ohm	IEC 60093
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index CTI	600	-	IEC 60112

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	9988-2	-	Internal

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Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.15%
recommended

Drying time: 3-4 h

Drying temperature: 120 - 140 °C

Temperature:

	ϕManifold	ϕMold	ϕMelt	ϕNozzle	ϕZone4	ϕZone3	ϕZone2	ϕZone1	ϕFeed	ϕHopper
min (°C)	190	80	180	190	180	180	180	170	60	20
max (°C)	200	120	200	200	200	195	185	175	80	30

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	600	600	0
max (bar)	1200	1200	40

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

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.

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