

Low emission

POM copolymer

Very easy flowing Injection molding type with high rigidity and hardness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation.

Emission according to VDA 275 < 10 mg/kg

Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm.

Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 FDA = Food and Drug Administration (USA)

Rheological properties

Melt volume-flow rate	24 cm ³ /10min	ISO 1133
Temperature	190 °C	
Load	2.16 kg	
Moulding shrinkage, parallel	1.9 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2900	MPa	ISO 527-1/-2
Yield stress, 50mm/min	65	MPa	ISO 527-1/-2
Yield strain, 50mm/min	7.5	%	ISO 527-1/-2
Nominal strain at break	17	%	ISO 527-1/-2
Flexural Modulus	2800	MPa	ISO 178
Tensile creep modulus, 1h	2500	MPa	ISO 899-1
Tensile creep modulus, 1000h	1300	MPa	ISO 899-1
Charpy impact strength, 23°C	170	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	170	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	5.5	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 358/30	147	MPa	ISO 2039-1

Thermal properties

Melting temperature, 10 ° C/min 160	S °C ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa 100	6 °C ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N 15	°C ISO 306
Coeff. of linear therm. expansion, parallel	E-6/K ISO 11359-1/-2
Thermal conductivity of melt 0.15	5 W/(m K) Internal
Spec. heat capacity of melt 221	J/(kg K) Internal

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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

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Relative permittivity, 100Hz	4	IEC 62631-2-1
Relative permittivity, 1MHz	4	IEC 62631-2-1
Dissipation factor, 100Hz	25 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 ³	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
	440.00

Ejection temperature 140 °C Internal

Characteristics

Additives Release agent

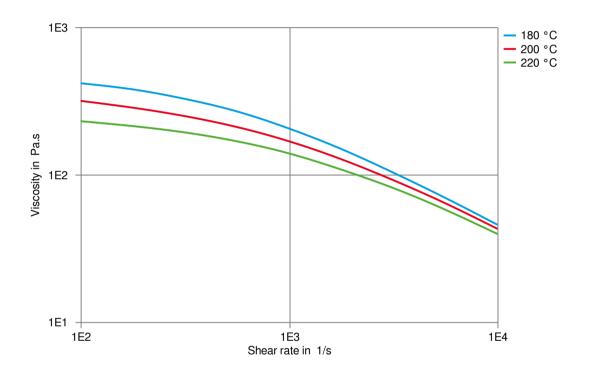
Additional information

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

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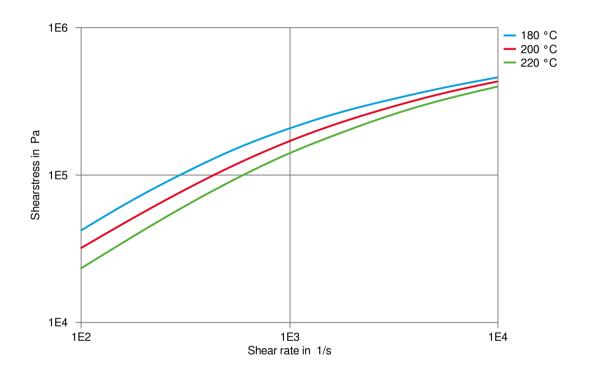
Viscosity-shear rate



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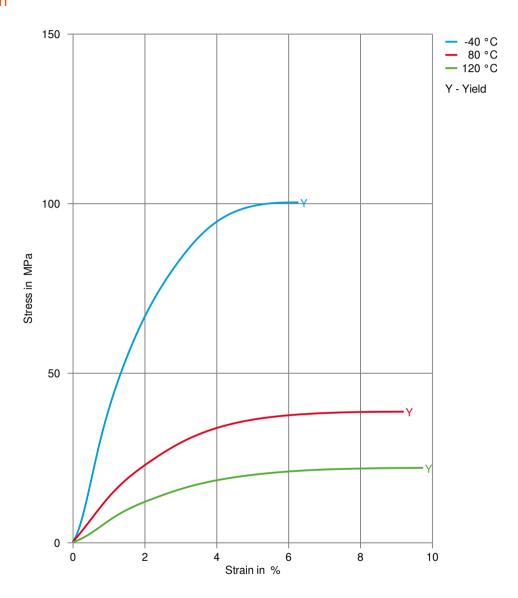
Shearstress-shear rate



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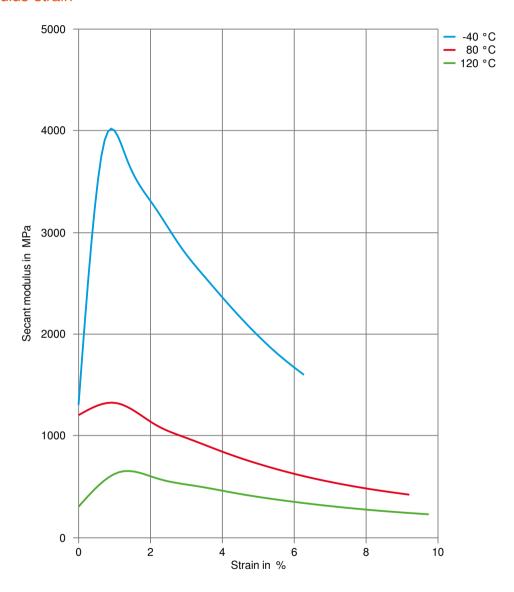
Stress-strain



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Secant modulus-strain



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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.

Injection molding Standard injection moulding machines with three phase (15 to 25 D)

plasticating screws will fit.

Injection molding Preprocessing

To achive low emission values pre drying using a recirculating air dryer (100 to

120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,1 %

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

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