

PERFORMANCE CHEMICALS

SABIC™ POM 30S

Polyoxymethylene

PRODUCT DESCRIPTION:

SABIC™ POM 30S is a high molecular weight copolymer POM grade suitable for injection molding and extrusion applications for parts requiring rigidity and strength for many applications.

CHARACTERISTICS:

SABIC™ POM 30S has the following:

- High impact toughness.
- Good tracking resistance over a range of temperature.
- Good chemical resistance to solvent.
- High resistance to thermal and oxidative degradation.
- Fuel, strong alkalis as well as good hydrolysis resistance.

TYPICAL DATA:

PHYSICAL PROPERTIES	Unit	Typical Value ⁽¹⁾	Test Method
Density	kg/m ³	1410	ISO 1183
Melt volume rate (MVR)	cm ³ /10min	2.5	ISO 1133
MVR test temperature	°C	190	ISO 1133
MVR test load	kg	2.16	ISO 1133
Mold shrinkage - parallel	%	2.1	ISO 294-4
Mold shrinkage - normal	%	1.8	ISO 294-4
Water absorption (23°C-sat)	%	0.65	ISO 62
THERMAL PROPERTIES	Unit	Typical Value ⁽¹⁾	Test Method
Melting temperature (10°C/min)	°C	165	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	°C	101	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	E-4/°C	1.1	ISO 11359-2
MECHANICAL PROPERTIES	Unit	Typical Value ⁽¹⁾	Test Method
Tensile modulus (1mm/min)	MPa	2600	ISO 527-2/1A
Tensile stress at yield (50mm/min)	MPa	62	ISO 527-2/1A
Tensile strain at yield (50mm/min)	%	9	ISO 527-2/1A
Nominal strain at break (50mm/min)	%	32	ISO 527-2/1A
Tensile creep modulus (1h)	MPa	2300	ISO 899-1
Tensile creep modulus (1000h)	MPa	1100	ISO 899-1
Flexural modulus (23°C)	MPa	2500	ISO 178
Charpy impact strength @ 23°C	kJ/m ²	220	ISO 179/1eU
Charpy impact strength @ -30°C	kJ/m ²	200	ISO 179/1eU
Charpy notched impact strength @ 23°C	kJ/m ²	8.5	ISO 179/1eA
Charpy notched impact strength @ -30°C	kJ/m ²	7	ISO 179/1eA
ELECTRICAL PROPERTIES	Unit	Typical Value ⁽¹⁾	Test Method
Relative permittivity - 100 Hz	-	4	IEC 60250
Relative permittivity - 1 MHz	-	4	IEC 60250
Dissipation factor - 100 Hz	E-4	15	IEC 60250
Dissipation factor - 1 MHz	E-4	50	IEC 60250
Volume resistivity	Ohm*m	1E12	IEC 60093
Surface resistivity	Ohm	1E14	IEC 60093
Electric strength	kV/mm	35	IEC 60243-1
Comparative tracking index CTI	-	600	IEC 60112

(1) Typical values; not to be construed as specification limits.

PROCESS GUIDELINES:

Injection Molding

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

Melt Temperature 190 – 230 °C

Mould Temperature 80 – 120 °C

Blow Molding

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

Melt Temperature 180 – 190 °C

Mould-surface Temperature 60 – 100 °C

Other Extrusion

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

Melt Temperature 180 – 190 °C

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