

PERFORMANCE CHEMICALS

# SABIC™ POM 280S

Polyoxymethylene

## PRODUCT DESCRIPTION:

SABIC™ POM 280S is a very easy flowing grade for injection molding applications requiring with high rigidity and hardness.

## CHARACTERISTICS:

SABIC™ POM 280S has the following:

- High stiffness and hardness.
- 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 <sup>(1)</sup>	Test Method
Density	kg/m <sup>3</sup>	1410	ISO 1183
Melt volume rate (MVR)	cm <sup>3</sup> /10min	24	ISO 1133
MVR test temperature	°C	190	ISO 1133
MVR test load	kg	2.16	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
THERMAL PROPERTIES	Unit	Typical Value <sup>(1)</sup>	Test Method
Melting temperature (10°C/min)	°C	166	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	°C	106	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	E-4/°C	1.1	ISO 11359-2
MECHANICAL PROPERTIES	Unit	Typical Value <sup>(1)</sup>	Test Method
Tensile modulus (1mm/min)	MPa	2900	ISO 527-2/1A
Tensile stress at yield (50mm/min)	MPa	65	ISO 527-2/1A
Tensile strain at yield (50mm/min)	%	7.5	ISO 527-2/1A
Nominal strain at break (50mm/min)	%	17	ISO 527-2/1A
Tensile creep modulus (1h)	MPa	2500	ISO 899-1
Tensile creep modulus (1000h)	MPa	1300	ISO 899-1
Flexural modulus (23°C)	MPa	2800	ISO 178
Charpy impact strength @ 23°C	kJ/m <sup>2</sup>	120	ISO 179/1eU
Charpy impact strength @ -30°C	kJ/m <sup>2</sup>	120	ISO 179/1eU
Charpy notched impact strength @ 23°C	kJ/m <sup>2</sup>	5.5	ISO 179/1eA
Charpy notched impact strength @ -30°C	kJ/m <sup>2</sup>	5.5	ISO 179/1eA
ELECTRICAL PROPERTIES	Unit	Typical Value <sup>(1)</sup>	Test Method
Relative permittivity - 100 Hz	-	4	IEC 60250
Relative permittivity - 1 MHz	-	4	IEC 60250
Dissipation factor - 100 Hz	E-4	25	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

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