

# SABIC<sup>®</sup> POM 280S

POLYOXYMETHYLENE

## DESCRIPTION

SABIC<sup>®</sup> POM 280S is a very easy flowing grade for injection molding applications requiring with high rigidity and hardness.

## TYPICAL PROPERTY VALUES

Revision 20181012

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>PHYSICAL PROPERTIES <sup>(1)</sup></b>			
Density	1410	kg/m <sup>3</sup>	ISO 1183
Melt volume rate (MVR)	24	cm <sup>3</sup> /10 min	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
<b>MECHANICAL PROPERTIES <sup>(1)</sup></b>			
Tensile modulus (1mm/min)	2900	MPa	ISO 527-2 1A
Tensile stress at yield (50mm/min)	65	MPa	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)	2500	MPa	ISO 899-1
Tensile creep modulus (1000h)	1300	MPa	ISO 899-1
Flexural modulus (23°C)	2800	MPa	ISO 178
Charpy impact strength @ 23°C	120	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength @ -30°C	120	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength @ 23°C	5.5	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength @ -30°C	5.5	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES <sup>(1)</sup></b>			
<b>Flammability Rating, UL 94</b>			
@ 1.5mm and 3mm thickness	HB	Class	UL Tested
Melting temperature (10 °C/min)	166	°C	ISO 11357-1 /-3
DTUL (@1.8 MPa)	106	°C	ISO 75-1&2
Coeff.of linear therm. expansion (parallel)	1.1	E-4/°C	ISO 11359-2

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

## CHARACTERISTICS

SABIC<sup>®</sup> 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.

## PROCESSING CONDITIONS

### 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

## STORAGE AND HANDLING

Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Open containers only in well-ventilated area. Store in a dry and cool area. Keep away from heat sources and sources of ignition. Keep away from direct sunlight. Residual monomer vapors can accumulate in the headspace of closed containers.

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