

SABIC® POM 140S

POLYOXYMETHYLENE

DESCRIPTION

SABIC® POM 140S is an easy flowing grade suitable for injection molding applications for precision molded parts and thinwalled molded parts require high rigidity.

TYPICAL PROPERTY VALUES

Revision 20220721

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL PROPERTIES ⁽¹⁾			
Density	1410	kg/m ³	ISO 1183
Melt volume rate (MVR)	12	cm ³ /10 min	ISO 1133
Mold shrinkage - parallel	2	%	ISO 294-4
Mold shrinkage - normal	1.8	%	ISO 294-4
Water absorption (23°C-sat)	0.65	%	ISO 62
MECHANICAL PROPERTIES ⁽¹⁾			
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)	9	%	ISO 527-2 1A
Nominal strain at break (50mm/min)	25	%	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	150	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	140	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	6.5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	6	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES ⁽¹⁾			
Flammability Rating, UL 94			
@ 1.5mm and 3mm thickness	HB	Class	UL Tested
Coeff.of linear therm. expansion (parallel)	1.1	E-4/°C	ISO 11359-2
Melting temperature (10 °C/min)	166	°C	ISO 11357-1/-3
Deflection temperature under load DTUL (@1.8 MPa)	106	°C	ISO 75-1&2

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

CHARACTERISTICS

SABIC® POM 140S has the following:

- Good strength and rigidity.
- Good chemical resistance to solvent.
- High resistance to thermal and oxidative degradation.
- Fuel, strong alkalis as well as good hydrolysis resistance

PROCESSING CONDITIONS

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 head space of closed containers.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.