

SABIC® POM 460S

POLYOXYMETHYLENE

DESCRIPTION

SABIC® POM 460S is an extremely easy flowing grade suitable for injection molding applications for very thin-walled precision molded parts with critical flow-path-wall thickness relation; the grade permits processing at reduced temperature, shorter cycle times suitable for many parts.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL PROPERTIES ⁽¹⁾			
Density	1410	kg/m ³	ISO 1183
Melt volume rate (MVR)	39	cm ³ /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
MECHANICAL PROPERTIES ⁽¹⁾			
Tensile modulus (1mm/min)	3000	MPa	ISO 527-2 1A
Tensile stress at yield (50mm/min)	65	MPa	ISO 527-2 1A
Tensile strain at yield (50mm/min)	7	%	ISO 527-2 1A
Nominal strain at break (50mm/min)	15	%	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	100	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	100	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	5.0	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	5.0	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES ⁽¹⁾			
Flammability Rating, UL 94			
@ 1.5mm and 3mm thickness	HB	Class	UL Tested
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
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® POM 460S has the following:

- High stiffness and hardness.
- Good chemical resistance to solvent.
- High resistance to thermal and oxidative degradation.
- Fuel and strong alkalis as well as good hydrolysis resistance.