

TECAFORM AH SD natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

ivory opaque

Density

1.35 g/cm³

Fillers

antistatic agent

Main features

- antistatic
- soot-free
- high strength
- good wear properties
- good chemical resistance
- high stiffness
- difficult to bond
- high toughness

Target Industries

- semiconductor technology
- chemical technology
- electronics
- mechanical engineering

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50mm/min	39	MPa	DIN EN ISO 527-2	
Modulus of elasticity (tensile test)	1mm/min	1300	MPa	DIN EN ISO 527-2	1)
Tensile strength at yield	50mm/min	39	MPa	DIN EN ISO 527-2	
Elongation at yield (tensile test)	50mm/min	23	%	DIN EN ISO 527-2	
Elongation at break (tensile test)	50mm/min	23	%	DIN EN ISO 527-2	
Flexural strength	2mm/min, 10 N	46	MPa	DIN EN ISO 178	2)
Modulus of elasticity (flexural test)	2mm/min, 10 N	1200	MPa	DIN EN ISO 178	
Compression strength	1% / 2% / 5% 5mm/min, 10 N	12/19/34	MPa	EN ISO 604	3)
Compression modulus	5mm/min, 10 N	1100	MPa	EN ISO 604	4)
Impact strength (Charpy)	max. 7,5J	n.b.	kJ/m ²	DIN EN ISO 179-1eU	5)
Notched impact strength (Charpy)	max. 7,5J	9	kJ/m ²	DIN EN ISO 179-1eA	
Shore hardness	D	74		DIN EN ISO 868	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		-60	°C	DIN EN ISO 11357	1)
Melting temperature		165	°C	DIN EN ISO 11357	
Service temperature	short term	140	°C		2)
Service temperature	long term	100	°C		
Thermal expansion (CLTE)	23-60°C, long.	16	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	23-100°C, long.	17	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
Specific heat		1.6	J/(g*K)	ISO 22007-4:2008	
Thermal conductivity		0.30	W/(K*m)	ISO 22007-4:2008	
Electrical properties	parameter	value	unit	norm	comment
surface resistivity	Silver electrode, 23°C, 50% r.h.	10 ⁹ -10 ¹¹	Ω	-	1)
volume resistivity	Silver electrode, 23°C, 50% r.h.	10 ⁹	Ω*cm	-	(1) Specimen in 20mm thickness (2) Specimen in 1mm thickness
Dielectric strength	23°C, 50% r.h.	5	kV/mm	ISO 60243-1	2)
Resistance to tracking (CTI)	Platin electrode, 23°C, 50% r.h., solvent A	600	V	DIN EN 60112	
Other properties	parameter	value	unit	norm	comment
Water absorption	24h / 96h (23°C)	0.9 / 1.8	%	DIN EN ISO 62	1)
Resistance to hot water/ bases	(+)	-			(2) (+) limited resistance (3) - poor resistance
Resistance to weathering	-	-			(4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	4)

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