



## TECAFORM AH SD natural - Stock Shapes

<b>Chemical Designation</b>	<b>Main features</b>	<b>Target Industries</b>			
POM-C (Polyacetal (Copolymer))	→ antistatic → soot-free → high strength → good wear properties → good chemical resistance → high stiffness → difficult to bond → high toughness	→ semiconductor technology → chemical technology → electronics → food technology → mechanical engineering			
<b>Colour</b> ivory opaque					
<b>Density</b> 1.35 g/cm <sup>3</sup>					
<b>Fillers</b> antistatic agent					
<b>Mechanical properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Modulus of elasticity (tensile test)	1mm/min	1300	MPa	DIN EN ISO 527-2	1)
Tensile strength	50mm/min	39	MPa	DIN EN ISO 527-2	
Tensile strength at yield	50mm/min	39	MPa	DIN EN ISO 527-2	
Elongation at yield	50mm/min	23	%	DIN EN ISO 527-2	
Elongation at break	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 <sup>2</sup>	DIN EN ISO 179-1eU	5)
Notched impact strength (Charpy)	max. 7,5J	9	kJ/m <sup>2</sup>	DIN EN ISO 179-1eA	
Ball indentation hardness		74	MPa	ISO 2039-1	6)
<b>Thermal properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
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 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	23-100°C, long.	17	10 <sup>-5</sup> K <sup>-1</sup>	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	
<b>Electrical properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Specific surface resistance	Silver electrode, 23°C, 50% r.h.	10 <sup>9</sup> - 10 <sup>11</sup>	Ω	DIN IEC 60093	1)
Specific volume resistance	Silver electrode, 23°C, 50% r.h.	10 <sup>9</sup>	Ω*cm	DIN IEC 60093	(2) Specimen in 1mm thickness
Dielectric strength	23°C, 50% r.h.	5	kV/mm	ISO 60243-1	(1) Specimen in 20mm thickness
Resistance to tracking (CTI)	Platin electrode, 23°C, 50% r.h., solvent A	600	V	DIN EN 60112	(2)
<b>Other properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Water absorption	24h / 96h (23°C)	0.9 / 1.8	%	DIN EN ISO 62	(1)
Resistance to hot water/ bases	(+)		-		(2) (+) limited resistance
Resistance to weathering	-	-	-		(3) - poor resistance
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	(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.