

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 | (1) For tensile test: specimen type 1b |
| Modulus of elasticity (tensile test) | 1mm/min | 1300 | MPa | DIN EN ISO 527-2 | (2) For flexural test: support span 64mm, norm specimen. |
| Tensile strength at yield | 50mm/min | 39 | MPa | DIN EN ISO 527-2 | (3) Specimen 10x10x10mm |
| Elongation at yield (tensile test) | 50mm/min | 23 | % | DIN EN ISO 527-2 | (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression. |
| Elongation at break (tensile test) | 50mm/min | 23 | % | DIN EN ISO 527-2 | (5) For Charpy test: support span 64mm, norm specimen. |
| Flexural strength | 2mm/min, 10 N | 46 | MPa | DIN EN ISO 178 | n.b. = not broken |
| 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 | (2) |
| 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) Specimen in 20mm thickness |
| volume resistivity | Silver electrode, 23°C, 50% r.h. | 10 ⁹ | Ω*cm | - | (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) Ø ca. 50mm, h=13mm |
| 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. |

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