

TECAFORM AH UD blue - Stock Shapes (rods, plates, tubes)

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

blue opaque

Density

1.68 g/cm³

Fillers

detectable filler

Main features

- metal detectable
- x-ray opaque
- food grade blue
- good mechanical properties
- good machinability

Target Industries

- food processing
- food engineering
- engineering for beverage filling systems
- packaging and paper machinery
- conveyor technology
- pharmaceutical industry

| Mechanical properties | parameter | value | unit | norm | comment |
|---------------------------------------|-------------------------------|-----------|----------------------------------|----------------------|--|
| Tensile strength | 50mm/min | 60 | MPa | DIN EN ISO 527-2 | (1) For tensile test: specimen type 1b |
| Modulus of elasticity (tensile test) | 1mm/min | 3300 | MPa | DIN EN ISO 527-2 | 1) (2) For flexural test: support span 64mm, norm specimen. |
| Tensile strength at yield | 50mm/min | 60 | MPa | DIN EN ISO 527-2 | (3) Specimen 10x10x10mm |
| Elongation at yield (tensile test) | 50mm/min | 13 | % | DIN EN ISO 527-2 | (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression. |
| Elongation at break (tensile test) | 50mm/min | 13 | % | DIN EN ISO 527-2 | (5) For Charpy test: support span 64mm, norm specimen. |
| Flexural strength | 2mm/min, 10 N | 91 | MPa | DIN EN ISO 178 | 2) |
| Modulus of elasticity (flexural test) | 2mm/min, 10 N | 3200 | MPa | DIN EN ISO 178 | |
| Compression strength | 1% / 2% / 5% 5mm/min, 10 N | 22/37/71 | MPa | EN ISO 604 | 3) |
| Compression modulus | 5mm/min, 10 N | 1600 | MPa | EN ISO 604 | 4) |
| Impact strength (Charpy) | max. 7.5J | 40 | kJ/m ² | DIN EN ISO 179-1eU | 5) |
| Notched impact strength (Charpy) | max. 7.5J | 5 | kJ/m ² | DIN EN ISO 179-1eA | |
| Shore hardness | D | 82 | | DIN EN ISO 868 | |
| Thermal properties | parameter | value | unit | norm | comment |
| Glass transition temperature | | -60 | °C | DIN EN ISO 11357 | 1) (1) Found in public sources. |
| Melting temperature | | 167 | °C | DIN EN ISO 11357 | (2) Found in public sources. |
| Service temperature | short term | 140 | °C | | Individual testing regarding application conditions is mandatory. |
| Service temperature | long term | 100 | °C | | |
| Thermal expansion (CLTE) | 23-60°C, long. | 11 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| Thermal expansion (CLTE) | 23-100°C, long. | 12 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| Other properties | parameter | value | unit | norm | comment |
| Water absorption | 24h / 96h (23°C) | 0,17/0,34 | % | DIN EN ISO 62 | 1) (1) Ø ca. 50mm, h=13mm |
| Resistance to hot water/ bases | | (+) | - | - | 2) (2) (+) limited resistance |
| Resistance to weathering | | - | - | - | 3) (3) - poor resistance |
| Flammability (UL94) | corresponding to | HB | | DIN IEC 60695-11-10; | 4) (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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