

Celcon® M-25 yellow (TECAFORM® AH MT) - Stock Shapes (rods, plates, tubes)

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

yellow

Density

1.41 g/cm³

Main features

- meets requirements for USP Class VI
- compliant with cytotoxicity according to ISO 10993-5
- good machinability

Target Industries

- medical technology
- pharmaceutical industry

| Mechanical properties | condition | value | unit | test method | comment |
|---------------------------------------|----------------------|----------------------|-----------|---------------|--|
| Modulus of elasticity (tensile test) | | 390,000 | psi | ASTM D 638 | (1) Data obtained from public source |
| Tensile strength at yield | | 9,400 | psi | ASTM D 638 | |
| Tensile strength at break | @ 73 °F | 10,000 | psi | ASTM D 638 | 1) |
| Elongation at yield (tensile test) | | 10 | % | ASTM D 638 | |
| Elongation at break (tensile test) | | 28 | % | ASTM D 638 | |
| Flexural strength | | 13,400 | psi | ASTM D 790 | |
| Modulus of elasticity (flexural test) | | 411,000 | psi | ASTM D 790 | |
| Compression strength | @ 73 °F, 1% strain | 2,900 | psi | ASTM D 695 | |
| Compression strength | @ 73 °F, 10% strain | 13,500 | psi | ASTM D 695 | |
| Compression modulus | @ 73 °F | 273,600 | psi | ASTM D 695 | |
| Impact strength (Izod) | @ 73 °F | .85 | ft-lbs/in | ASTM D 256 | |
| Thermal properties | condition | value | unit | test method | comment |
| Melting temperature | | 320 | °F | - | 1) (1) per ASTM D3418 |
| Deflection temperature | @264 psi | 230 | °F | ASTM D 648 | 2) (2) Data obtained from public source |
| Service temperature | Long Term | 212 | °F | - | 3) (3) Data obtained from public source |
| Service temperature | short term | 284 | °F | - | 3) (4) data obtained from public source |
| Thermal expansion (CLTE) | @ 73°F to 131°F | 5.5*10 ⁻⁵ | in/in/°F | ASTM E 831 | 4) |
| Electrical properties | condition | value | unit | test method | comment |
| surface resistivity | | 10 ¹⁴ | Ω/square | DIN IEC 60093 | 1) (1) data obtained from public sources |
| volume resistance | | 10 ¹⁴ | Ω*cm | DIN IEC 60093 | 2) (2) data obtained from public sources |
| Dielectric loss factor | | 0.003 | | DIN IEC 60250 | 3) (3) data obtained from public sources |
| Dielectric constant | @ 10 ³ Hz | 3.5 | | DIN IEC 60250 | 4) (4) data obtained from public sources |
| Other properties | condition | value | unit | test method | comment |
| Moisture absorption | @ 24 hrs. | 0.12 | % | ASTM D 570 | |

→ Resin specification:
ASTM D6778-14 POM0210B55340
Shapes specification:
ASTM D6100-11 S-POM0211

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