

TECAPEEK® ID blue - Stock Shapes (rods, plates, tubes)

Chemical Designation

PEEK (Polyetheretherketone)

Colour

blue grey

Density

1.44 g/cm³

Fillers

detectable filler

Main features

- detectable via metal detector
- very good chemical resistance
- hydrolysis and superheated steam resistant
- good heat deflection temperature
- high creep resistance
- inherent flame resistance
- good machinability

Target Industries

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

| <i>Mechanical properties</i> | <i>condition</i> | <i>value</i> | | <i>test method</i> | <i>comment</i> |
|---------------------------------------|------------------|----------------------|-----------|--------------------|---|
| Modulus of elasticity (tensile test) | (1mm/min) | 624,000 | psi | DIN EN ISO 527-2 | (1) Data obtained from public source |
| Tensile strength at yield | 50 mm/min | 14,500 | psi | DIN EN ISO 527-2 | (2) Data obtained from public source |
| Tensile strength at break | 50 mm/min | 16,100 | psi | DIN EN ISO 527-2 | (3) Data obtained from public source |
| Elongation at yield | 50 mm/min | 4 | % | DIN EN ISO 527-1 | (4) Data obtained from public source |
| Elongation at break | @ 73 °F | 4 | % | DIN EN ISO 527-2 | |
| Flexural strength | 2 mm/min 10N | 24,100 | psi | DIN EN ISO 178 | 3) |
| Modulus of elasticity (flexural test) | | 638,000 | psi | ASTM D 790 | |
| Compression modulus | 5 mm/min 10N | 696,000 | psi | EN ISO 604 | 4) |
| Impact strength (Charpy) | | 21.4 | ft-lbs/in | DIN EN ISO 179-1 | |
| <i>Thermal properties</i> | <i>condition</i> | <i>value</i> | | <i>test method</i> | <i>comment</i> |
| Glass transition temperature | | 289 | °F | DIN 53765 | |
| Melting temperature | | 649 | °F | DIN 53765 | |
| Service temperature | Long Term | 500 | °F | - | |
| Service temperature | Intermittent | 572 | °F | - | |
| <i>Electrical properties</i> | <i>condition</i> | <i>value</i> | | <i>test method</i> | <i>comment</i> |
| surface resistivity | | 1.0*10 ¹⁴ | Ω/square | - | 1) (1) Data obtained from public source |
| volume resistivity | | 1.0*10 ¹⁴ | Ω*cm | - | 2) (2) Data obtained from public source |
| <i>Other properties</i> | <i>condition</i> | <i>value</i> | | <i>test method</i> | <i>comment</i> |
| Moisture absorption | | 0.03 | % | ASTM D 570 | 1) (1) Data obtained from public source |
| Moisture absorption | @ 24 hrs. 73°F | 0.02 | % | ASTM D 570 | 2) (2) Data obtained from public source |
| Flammability (UL94) | | V0 | | - | |

→ TECAPEEK products are based on Victrex® PEEK polymer.

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