

TECAST® L natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 6 (Polyamide 6)

Colour

natural

Density

1.14 g/cm³

Fillers

oil

Main features

- excellent wear properties
- excellent strength and stiffness
- high mechanical load capacity
- very good slide and wear properties

Target Industries

- construction industry
- agricultural machinery
- gear manufacturing
- mining industry
- conveyor technology
- oil and gas industry

| Mechanical properties | condition | value | unit | test method | comment |
|---------------------------------------|-----------------|----------------------|-------------------------------|-------------|--------------------------------------|
| Tensile strength | @ 73 °F | 9,000 | psi | ASTM D 638 | (1) Data obtained from public source |
| Modulus of elasticity (tensile test) | @ 73 °F | 350,000 | psi | ASTM D 638 | (2) Data obtained from public source |
| Tensile strength at break | @ 73 °F | 10,000 | psi | ASTM D 638 | 1) |
| Elongation at yield (tensile test) | @ 73 °F | 8 | % | ASTM D 638 | 2) |
| Elongation at break (tensile test) | @ 73 °F | 25 | % | ASTM D 638 | |
| Flexural strength | @ 73 °F | 12,500 | psi | ASTM D 790 | |
| Modulus of elasticity (flexural test) | @ 73 °F | 350,000 | psi | ASTM D 790 | |
| Impact strength (Izod) | @ 73 °F | 1.2 | ft-lbs/in | ASTM D 256 | |
| Rockwell hardness | @ 73 °F | 100 | | ASTM D 785 | |
| Thermal properties | condition | value | unit | test method | comment |
| Melting temperature | | 428 | °F | ASTM D 2133 | (1) Data obtained from public source |
| Service temperature | Intermittent | 330 | °F | - | (2) Data obtained from public source |
| Service temperature | Long Term | 200 | °F | - | (3) Data obtained from public source |
| Thermal expansion (CLTE) | | 4.0*10 ⁻⁵ | in/in/°F | ASTM D 696 | 1) |
| Specific heat | | 0.73 | BTU/lb-F° | - | 2) |
| Thermal conductivity | | 2.57 | BTU-in/hr-ft ² -°F | - | 3) |
| Electrical properties | condition | value | unit | test method | comment |
| surface resistivity | | 1.0*10 ¹⁴ | Ω/square | ASTM D 257 | 1) |
| volume resistivity | | 1.0*10 ¹⁴ | Ω*cm | ASTM D 257 | 2) |
| Other properties | condition | value | unit | test method | comment |
| Moisture absorption | @ 24 hrs, 73 °F | 0.75 | % | ASTM D 570 | (1) Data obtained from public source |
| Flammability (UL94) | | HB | % | - | 1) |

→ Resin specification:
NONE
Shapes specification:
ASTM D5989-11 S-PA0251

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