

TECAFINE PE300 black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PE-HD (Polyethylene)

Colour

black opaque

Density

0.96 g/cm³

Main features

- average molecular weight 300.000 g/mol
- excellent chemical resistance
- easy weldable
- high stiffness
- high toughness

Target Industries

- agricultural machinery
- automotive industry
- chemical technology
- pharmaceutical industry

| <i>Mechanical properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
|--------------------------------------|------------------|--------------------|----------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Modulus of elasticity (tensile test) | | 1100 | MPa | DIN EN ISO 527-1 | (1) n.b. = not broken |
| Tensile strength at yield | | 23 | MPa | DIN EN ISO 527-1 | |
| Elongation at yield (tensile test) | | 9 | % | DIN EN ISO 527-1 | |
| Impact strength (Charpy) | | n.b. | kJ/m ² | DIN EN ISO 179-1 | 1) |
| Ball indentation hardness | | 43 | MPa | - | |
| Shore hardness | Shore D | 64 | | DIN EN ISO 868 | |
| <i>Thermal properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
| Service temperature | | -50 - +80 | °C | - | 1) (1) Found in public sources. Individual testing regarding application conditions is mandatory. |
| Thermal expansion (CLTE) | | 18 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| <i>Electrical properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
| surface resistivity | | ≥ 10 ¹⁴ | Ω | - | |
| Dielectric strength | | 50 | kV/mm | ISO 60243-1 | |
| <i>Other properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
| Flammability | corresponding to | B2 | | DIN 4102 | 1) (1) Corresponding means no listing. The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory. |

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