

TECAFINE PE100 black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PE 100 (High Density Polyethylene)

Colour

black opaque

Density

0.96 g/cm³

Main features

- average molecular weight 300.000 g/mol
- excellent chemical resistance
- heat stabilized
- good machinability
- high stiffness
- high toughness

Target Industries

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

| Mechanical properties | parameter | value | unit | norm | comment |
|--------------------------------------|------------------|--------------------|----------------------------------|----------------------|--|
| 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 | | 40 | MPa | - | |
| Shore hardness | Shore D | 64 | | DIN EN ISO 868 | |
| Thermal properties | parameter | value | unit | norm | comment |
| Service temperature | | -50 - +80 | °C | - | 1) |
| Thermal expansion (CLTE) | | 18 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | (1) Found in public sources. Individual testing regarding application conditions is mandatory. |
| Electrical properties | parameter | value | unit | norm | comment |
| surface resistivity | | ≥ 10 ¹⁴ | Ω | - | |
| Dielectric strength | | 47 | kV/mm | ISO 60243-1 | |
| Other properties | parameter | value | unit | norm | comment |
| Flammability | corresponding to | B2 | | DIN 4102 | 1) |

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Date: 2017/10/25

Version: AA