

TECAFINE PE500 black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PE-HMW (Polyethylene - high molecular weight)

Colour

black opaque

Density

0.95 g/cm³

Main features

- high molecular weight
- good UV and weather resistance
- good wear resistance
- good slide and wear properties
- good impact strength
- anti adhesive
- average molecular weight 500.000 g/mol

Target Industries

- construction industry
- food technology
- mining 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 | | 28 | MPa | DIN EN ISO 527-1 | |
| Elongation at yield (tensile test) | | 8 | % | DIN EN ISO 527-1 | |
| Impact strength (Charpy) | | n.b. | kJ/m ² | DIN EN ISO 179-1 | 1) |
| Shore hardness | Shore D | 66 | | 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 | | -100 - +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. |
| <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 | | 44 | 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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Manufactured by: Ensinger Group,
a German based plastic manufacturer

63 Hillview Avenue #02-03
Lam Soon Industrial Building
Singapore 669569
Tel +65 65524177
Fax +65 65525177
www.ensingerplastics.com/en-sg/

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Ensinger Asia Holding Pte Ltd.
(Singapore Branch)
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