

Multiplast HMPE500

Multiplast HMPE500 is a high-modulus polyethylene which is also known as:

- HMPE (High-molecular-weight polyethylene)
- HMW-PE (High-molecular-weight polyethylene)

Multiplast HMPE500 outstanding qualities are:

- Low coefficient of friction
- Self-lubricating
- High abrasion resistance
- Good wear resistance

| Properties | Units | |
|-------------------------------------------------|----------------------------------|-----------------------------------------------|
| Tensile strength | MPa | 28 |
| Breaking strength at 23°C | MPa | 38 |
| Elongation at break | % | >600 |
| Torsional stiffness at 23°C | MPa | 350 |
| Torsional stiffness at -40°C | MPa | 700 |
| Ball indentation hardness 30 sec. value | MPa | 46 |
| Shore hardness D | - | 64 |
| Abrasion (Sand-Slurry-Test) | % | 250-350 |
| Melting temperature | °C | 133 |
| Thermal coefficient of linear expansion 23-80°C | 10 ⁻⁵ K ⁻¹ | 17-25 |
| Thermal conductivity | W /m K | 0,40 |
| Dimensional stability under heat | °C | 80 |
| Volume resistance | Ω x cm | > 10 ¹⁷ |
| Surface resistance | Ω | > 10 ¹⁴ |
| Dielectric strength | KV / cm | 90 |
| Density | g/cm ³ | 0,951 |
| Molecular weight | Millions | Ca. 0,6 |
| Color | - | Standard colors are: Natural, Black and Green |

Availability:

| | | |
|--------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Sheet: | Size: | 1000 x 2000 mm 1200 x 2000 mm 1250 x 2000 mm 1000 x 2600 mm 1000 x 3050 mm 2050 x 3050 mm Smaller parts are possible |
| | Thickness: | 6 - 200 mm |
| Rod: | Length: Diameter | 1000 & 2000 mm (shorter lengths are possible) Ø10 – Ø250 mm |
| Parts: | Finished products conform drawing | |