

Technical Data Sheet

Robalon[®] W

PE-UHMW / PE 1000

Typical characteristics

- Buenas propiedades de deslizamiento
- Muy buena resistencia a la abrasión y al desgaste.
- Alto alargamiento a la rotura
- Buena resistencia al impacto

Typical industries

- Construcción de máquinas e instalaciones
- Tecnología agrícola
- Sector del esquí
- Sector eléctrico

| | Test method | Unit | Guideline value |
|---|---------------------------------|----------------------|------------------------|
| General properties | | | |
| Density | DIN EN ISO 1183-1 | g / cm ³ | 0,93 |
| Water absorption | DIN EN ISO 62 | % | <0,01 |
| Flammability (Thickness 3 mm / 6 mm) | UL 94 | | HB/HB |
| Molecular weight | | g/mol | 9,20 * 10 ⁶ |
| Color | | | white |
| Mechanical properties | | | |
| Yield stress | DIN EN ISO 527 | MPa | 17 |
| Elongation at break | DIN EN ISO 527 | % | >300 |
| Tensile modulus of elasticity | DIN EN ISO 527 | MPa | 470 |
| Notched impact strength | DIN EN ISO 179/1eA | kJ / m ² | >100 |
| Shore hardness | DIN EN ISO 868 / 15 sec | scale D | 63 |
| Compression - compression set | 23°C, 2N/mm ² , 1h | % | ~2 |
| Compression - compression set | 80°C, 10N/mm ² , 56h | % | ~20 |
| Thermal properties | | | |
| Melting temperature | DIN EN ISO 3146 | °C | 135 |
| Thermal conductivity | DIN EN ISO 8302 | W / (m * K) | 0,41 |
| Thermal capacity | DIN 51005 | kJ / (kg * K) | 1,84 |
| Coefficient of linear thermal expansion | DIN 53752 | 10 ⁻⁶ / K | 200 |
| Service temperature, long term | Average | °C | -200 ... 80 |

ri-inquiry@roechling.com • www.roechling.com/industrial/materials

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| | Test method | Unit | Guideline value |
|--|------------------|---------|------------------------|
| Service temperature, short term (max.) | Average | °C | 110 |
| Electrical properties | | | |
| Dielectric constant | IEC 60250 | | 2,1 ... 3 |
| Dielectric dissipation factor (10 ⁶ Hz) | IEC 60250 | | 10 * 10 ⁻⁴ |
| Dielectric dissipation factor (100 Hz) | IEC 60250 | | 3,9 * 10 ⁻⁴ |
| Volume resistivity | DIN EN 62631-3-1 | Ω * cm | 10 ¹² |
| Surface resistivity | DIN EN 62631-3-2 | Ω | 10 ¹² |
| Comparative tracking index | IEC 60112 | | 600 |
| Dielectric strength | IEC 60243 | kV / mm | 45 |

The data given are standard values which are based on our experience & previous technical studies. These values are influenced by the design, processing conditions and environmental influences out of our control. The sustainability of the material for a given application is the responsibility of the user. Typing and printing errors reserved.

