

Technical Data Sheet

Robalon[®] GL

PE-UHMW / PE 1000

Typical characteristics

- UV-resistant
- High stiffness

Typical industries

- 饮用水和废水技术
- 机械工程行业
- 农业行业
- 高山工业

| | Test method | Unit | Guideline value |
|---|---------------------------------|----------------------|------------------------|
| General properties | | | |
| Density | DIN EN ISO 1183-1 | g / cm ³ | 0,97 |
| 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 | | | black |
| Mechanical properties | | | |
| Yield stress | DIN EN ISO 527 | MPa | 19 |
| Elongation at break | DIN EN ISO 527 | % | >150 |
| Tensile modulus of elasticity | DIN EN ISO 527 | MPa | 670 |
| Notched impact strength | DIN EN ISO 179/1eA | kJ / m ² | >80 |
| Shore hardness | DIN EN ISO 868 / 15 sec | scale D | 64 |
| 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 |
| Service temperature, short term (max.) | Average | °C | 110 |

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| | Test method | Unit | Guideline value |
|------------------------------|------------------|--------------------------|-----------------|
| Electrical properties | | | |
| Volume resistivity | DIN EN 62631-3-1 | $\Omega \cdot \text{cm}$ | 10^{10} |
| Surface resistivity | DIN EN 62631-3-2 | Ω | 10^{10} |
| Comparative tracking index | IEC 60112 | | 600 |

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.



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