

## Technical Data Sheet

### Robaglas®

PE-UHMW / PE 1000

#### Typical characteristics

- UV-resistant
- Good sliding properties
- Good wear properties
- Low specific weight
- Chemical resistant
- High impact resistance
- High stiffness

#### Typical industries

- Industrie papetière

|   | Test method             | Unit                 | Guideline value       |
|---|-------------------------|----------------------|-----------------------|
| <b>General properties</b>               |                         |                      |                       |
| Densité                                 | DIN EN ISO 1183-1       | g / cm <sup>3</sup>  | 0,97                  |
| Water absorption                        | DIN EN ISO 62           | %                    | 0,01                  |
| Flammability (Thickness 3 mm / 6 mm)    | UL 94                   |                      | HB / HB               |
| Molecular weight                        |                         | g/mol                | 9,2 * 10 <sup>6</sup> |
| Couleur                                 |                         |                      | black                 |
| <b>Mechanical properties</b>            |                         |                      |                       |
| Yield stress                            | DIN EN ISO 527          | MPa                  | 19                    |
| Elongation at break                     | DIN EN ISO 527          | %                    | 200                   |
| Tensile modulus of elasticity           | DIN EN ISO 527          | MPa                  | 670                   |
| Notched impact strength                 | DIN EN ISO 179/1eA      | kJ / m <sup>2</sup>  | >80                   |
| Shore hardness                          | DIN EN ISO 868 / 15 sec | scale D              | 64                    |
| <b>Thermal properties</b>               |                         |                      |                       |
| 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 <sup>-6</sup> / K | 200                   |
| Service temperature, long term          | Average                 | °C                   | -200 ... 80           |
| Service temperature, short term (max.)  | Average                 | °C                   | 110                   |
| <b>Electrical properties</b>            |                         |                      |                       |

[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)



|                            | Test method      | Unit                     | Guideline value |
|----------------------------|------------------|--------------------------|-----------------|
| Volume resistivity         | DIN EN 62631-3-1 | $\Omega \cdot \text{cm}$ | $10^{10}$       |
| Surface resistivity        | DIN EN 62631-3-2 | $\Omega$                 | $10^{10}$       |
| 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.

Chemical properties: chemically resistant to all aggressive media with the exception of highly oxidising acids. High resistant to corrosion. This material is resistant to all standard chemicals used in paper production, felt/wire cleaning and corrosion inhibition.



[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)

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