

### Technical Data Sheet

## Robalon<sup>®</sup> E

PE-UHMW / PE 1000

#### Typical characteristics

- Resistencia química
- Conducto electrico
- Anti estático

#### Typical industries

- Agua potable y tratamiento de aguas residuales
- Construcción de máquinas e instalaciones
- Tecnología agrícola
- Sector del esquí

|   | Test method                     | Unit                 | Guideline value        |
|---|---------------------------------|----------------------|------------------------|
| <b>General properties</b>               |                                 |                      |                        |
| Density                                 | DIN EN ISO 1183-1               | g / cm <sup>3</sup>  | 0,94                   |
| 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 <sup>6</sup> |
| Color                                   |                                 |                      | black                  |
| <b>Mechanical properties</b>            |                                 |                      |                        |
| Yield stress                            | DIN EN ISO 527                  | MPa                  | 16                     |
| Elongation at break                     | DIN EN ISO 527                  | %                    | >270                   |
| Tensile modulus of elasticity           | DIN EN ISO 527                  | MPa                  | 600                    |
| Notched impact strength                 | DIN EN ISO 179/1eA              | kJ / m <sup>2</sup>  | >90                    |
| Shore hardness                          | DIN EN ISO 868 / 15 sec         | scale D              | 63                     |
| Compression - compression set           | 23°C, 2N/mm <sup>2</sup> , 1h   | %                    | ~2                     |
| Compression - compression set           | 80°C, 10N/mm <sup>2</sup> , 56h | %                    | ~20                    |
| <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            |

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|  | Test method      | Unit                     | Guideline value |
|--|------------------|--------------------------|-----------------|
| Service temperature, short term (max.) | Average          | °C                       | 110             |
| <b>Electrical properties</b>           |                  |                          |                 |
| Volume resistivity                     | DIN EN 62631-3-1 | $\Omega \cdot \text{cm}$ | $10^4$          |
| Surface resistivity                    | DIN EN 62631-3-2 | $\Omega$                 | $10^7$          |
| 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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