

## Technical Data Sheet

# Polystone<sup>®</sup> M yellow pressed

PE-UHMW / PE 1000

### Typical characteristics

- Low coefficient of friction
- Good impact strength
- Good wear properties

### Typical industries

- Mechanical Engineering Industry
- Sports & Leisure
- Conveyor Technology & Automation
- Food Industry

### Sustainability

- LCA available (ISO 14040/44)

|   | Test method             | Unit                 | Guideline value |
|---|-------------------------|----------------------|-----------------|
| <b>General properties</b>               |                         |                      |                 |
| Density                                 | DIN EN ISO 1183-1       | g / cm <sup>3</sup>  | >0,93           |
| Water absorption                        | DIN EN ISO 62           | %                    | <0,01           |
| Flammability (Thickness 3 mm / 6 mm)    | UL 94                   |                      | HB              |
| Molecular weight                        |                         | g/mol                | ~ 9             |
| <b>Mechanical properties</b>            |                         |                      |                 |
| Elongation at yield stress              | DIN EN ISO 527          | %                    | >300            |
| Tensile modulus of elasticity           | DIN EN ISO 527          | MPa                  | >650            |
| Notched impact strength                 | DIN EN ISO 11542        | kJ / m <sup>2</sup>  | >100            |
| Shore hardness                          | DIN EN ISO 868          | scale D              | >60             |
| <b>Thermal properties</b>               |                         |                      |                 |
| Melting temperature                     | ISO 11357-3             | °C                   | 130 ... 135     |
| Thermal conductivity                    | DIN 52612-1             | W / (m * K)          | 0,40            |
| Thermal capacity                        | DIN 52612               | kJ / (kg * K)        | 1,90            |
| Coefficient of linear thermal expansion | DIN 53752               | 10 <sup>-6</sup> / K | 150 ... 230     |
| Service temperature, long term          | Average                 | °C                   | -250 ... 80     |
| Service temperature, short term (max.)  | Average                 | °C                   | 130             |
| Vicat softening temperature             | DIN EN ISO 306, Vicat B | °C                   | 80              |
| <b>Electrical properties</b>            |                         |                      |                 |
| Dielectric constant                     | IEC 60250               |                      | 2,3             |

[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   |
|--|------------------|---------|-------------------|
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250        |         | 0,0001            |
| Volume resistivity                                 | DIN EN 62631-3-1 | Ω * cm  | >10 <sup>14</sup> |
| Surface resistivity                                | DIN EN 62631-3-2 | Ω       | >10 <sup>14</sup> |
| Comparative tracking index                         | IEC 60112        |         | 600               |
| Dielectric strength                                | IEC 60243        | kV / mm | >40               |

The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.



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

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