

## Technical Data Sheet



# Polystone<sup>®</sup> M PIR blue

PE-UHMW / PE 1000

### Typical characteristics

- Good wear resistance
- Good cutting resistance
- High scratch resistance
- Good impact strength

### Typical industries

- Mechanical Engineering Industry

### Sustainability

- Post-Industrial-Recycling material
- Recycling content 90%

|   | 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                |
| <b>Mechanical properties</b>            |                   |                      |                   |
| Yield stress                            | DIN EN ISO 527    | MPa                  | >17               |
| Elongation at yield stress              | DIN EN ISO 527    | %                    | >18               |
| Elongation at break                     | DIN EN ISO 527    | %                    | >235              |
| Tensile modulus of elasticity           | DIN EN ISO 527    | MPa                  | >550              |
| 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              |
| 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               |
| <b>Electrical properties</b>            |                   |                      |                   |
| 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> |

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.

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