

### Technical Data Sheet



## Polystone<sup>®</sup> M PIR green

PE-UHMW / PE 1000

#### Typical characteristics

- Good wear resistance
- Good sliding properties

#### Typical industries

- Conveyor Technology & Automation
- 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>   | >0,94           |
| Water absorption                                   | DIN EN ISO 62           | %                     | <0,01           |
| Flammability (Thickness 3 mm / 6 mm)               | UL 94                   |                       | HB              |
| Molecular weight                                   | -                       | 10 <sup>6</sup> g/mol | ≥ 4             |
| <b>Mechanical properties</b>                       |                         |                       |                 |
| Yield stress                                       | DIN EN ISO 527          | MPa                   | >19             |
| Tensile modulus of elasticity                      | DIN EN ISO 527          | MPa                   | >700            |
| Notched impact strength                            | DIN EN ISO 11542        | kJ / m <sup>2</sup>   | >70             |
| Shore hardness                                     | DIN EN ISO 868          | scale D               | >63             |
| <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                    | -100 ... 80     |
| Service temperature, short term (max.)             | Average                 | °C                    | 130             |
| Vicat softening temperature                        | DIN EN ISO 306, Vicat B | °C                    | 79              |
| <b>Electrical properties</b>                       |                         |                       |                 |
| Dielectric constant                                | IEC 60250               |                       | 2,3             |
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250               |                       | 0,0004          |
| Comparative tracking index                         | IEC 60112               |                       | 600             |



|                     | Test method | Unit    | Guideline value |
|---------------------|-------------|---------|-----------------|
| Dielectric strength | IEC 60243   | kV / mm | >40             |

