

### Technical Data Sheet

# Polystone<sup>®</sup> M EL + EHS black

PE-UHMW / PE 1000

#### Typical characteristics

- Electrically conductive
- Heat resistant
- Good wear properties

#### Typical industries

- Bulk Material Handling
- Mechanical Engineering Industry
- Beverage Industry
- Food Industry

|   | Test method             | Unit                  | Guideline value  |
|---|-------------------------|-----------------------|------------------|
| <b>General properties</b>               |                         |                       |                  |
| Density                                 | DIN EN ISO 1183-1       | g / cm <sup>3</sup>   | >0,96            |
| Water absorption                        | DIN EN ISO 62           | %                     | <0,05            |
| Flammability (Thickness 3 mm / 6 mm)    | UL 94                   |                       | HB               |
| Molecular weight                        | -                       | 10 <sup>6</sup> g/mol | ~ 9              |
| <b>Mechanical properties</b>            |                         |                       |                  |
| Yield stress                            | DIN EN ISO 527          | MPa                   | >20              |
| Elongation at break                     | DIN EN ISO 527          | %                     | >50              |
| Tensile modulus of elasticity           | DIN EN ISO 527          | MPa                   | >800             |
| Notched impact strength                 | DIN EN ISO 11542        | kJ / m <sup>2</sup>   | >50              |
| 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                    | -250 ... 110     |
| Service temperature, short term (max.)  | Average                 | °C                    | 130              |
| Vicat softening temperature             | DIN EN ISO 306, Vicat B | °C                    | 79               |
| <b>Electrical properties</b>            |                         |                       |                  |
| Volume resistivity                      | DIN EN 62631-3-1        | Ω * cm                | <10 <sup>5</sup> |

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|                     | Test method      | Unit     | Guideline value |
|---------------------|------------------|----------|-----------------|
| Surface resistivity | DIN EN 62631-3-2 | $\Omega$ | $<10^5$         |

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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