

### Technical Data Sheet

# Polystone<sup>®</sup> PVDF natural extruded

PVDF

#### Typical characteristics

- High temperature resistance
- Good weldability
- Chemical resistant
- Good heat ageing resistance

#### Typical industries

- Chemical Processing Industry
- Clean-Room Technology
- Galvanic plants
- Chemical storage tanks
- Steel-pickling plants

|  | Test method             | Unit                 | Guideline value |
|--|-------------------------|----------------------|-----------------|
| <b>General properties</b>                          |                         |                      |                 |
| Density  | DIN EN ISO 1183-1       | g / cm <sup>3</sup>  | >1,75           |
| Water absorption                                   | DIN EN ISO 62           | %                    | 0,4             |
| Flammability (Thickness 3 mm / 6 mm)               | UL 94                   |                      | V0              |
| <b>Mechanical properties</b>                       |                         |                      |                 |
| Yield stress                                       | DIN EN ISO 527          | MPa                  | >50             |
| Elongation at break                                | DIN EN ISO 527          | %                    | >30             |
| Tensile modulus of elasticity                      | DIN EN ISO 527          | MPa                  | >2100           |
| Notched impact strength                            | DIN EN ISO 179          | kJ / m <sup>2</sup>  | >13             |
| Shore hardness                                     | DIN EN ISO 868          | scale D              | >75             |
| <b>Thermal properties</b>                          |                         |                      |                 |
| Melting temperature                                | ISO 11357-3             | °C                   | 172 ... 175     |
| Thermal conductivity                               | DIN 52612-1             | W / (m * K)          | 0,19            |
| Thermal capacity                                   | DIN 52612               | kJ / (kg * K)        | 1,20            |
| Coefficient of linear thermal expansion            | DIN 53752               | 10 <sup>-6</sup> / K | 100 ... 140     |
| Service temperature, long term                     | Average                 | °C                   | 0 ... 140       |
| Service temperature, short term (max.)             | Average                 | °C                   | >145            |
| Vicat softening temperature                        | DIN EN ISO 306, Vicat B | °C                   | 140             |
| <b>Electrical properties</b>                       |                         |                      |                 |
| Dielectric constant                                | IEC 60250               |                      | 8,0             |
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250               |                      | 0,02            |

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|                            | Test method      | Unit                     | Guideline value |
|----------------------------|------------------|--------------------------|-----------------|
| Volume resistivity         | DIN EN 62631-3-1 | $\Omega \cdot \text{cm}$ | $>10^{14}$      |
| Surface resistivity        | DIN EN 62631-3-2 | $\Omega$                 | $>10^{14}$      |
| Comparative tracking index | IEC 60112        |                          | 600             |
| Dielectric strength        | IEC 60243        | kV / mm                  | 20              |

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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Page 2 / 2 (Dates in DD/MM/YYYY)

