

## Technical Data Sheet

# Polystone<sup>®</sup> P (RandomCopolymer) natural

PP-R

### Typical characteristics

- High rigidity
- Good weldability
- Corrosion resistant
- Heat resistant

### Typical industries

- Chemical Processing Industry
- Galvanic plants
- Exhaust-air cleaning plants
- Chemical storage tanks
- Ventilation plants
- Hydrogen Energy

|   | Test method             | Unit                 | Guideline value |
|---|-------------------------|----------------------|-----------------|
| <b>General properties</b>               |                         |                      |                 |
| Density                                 | DIN EN ISO 1183-1       | g / cm <sup>3</sup>  | >0,91           |
| Water absorption                        | DIN EN ISO 62           | %                    | <0,1            |
| Flammability (Thickness 3 mm / 6 mm)    | UL 94                   |                      | HB              |
| <b>Mechanical properties</b>            |                         |                      |                 |
| Yield stress                            | DIN EN ISO 527          | MPa                  | >23             |
| Elongation at break                     | DIN EN ISO 527          | %                    | >50             |
| Tensile modulus of elasticity           | DIN EN ISO 527          | MPa                  | >1000           |
| Notched impact strength                 | DIN EN ISO 179          | kJ / m <sup>2</sup>  | >10             |
| Shore hardness                          | DIN EN ISO 868          | scale D              | >64             |
| <b>Thermal properties</b>               |                         |                      |                 |
| Melting temperature                     | ISO 11357-3             | °C                   | 146 ... 152     |
| Thermal conductivity                    | DIN 52612-1             | W / (m * K)          | 0,20            |
| Thermal capacity                        | DIN 52612               | kJ / (kg * K)        | 1,70            |
| Coefficient of linear thermal expansion | DIN 53752               | 10 <sup>-6</sup> / K | 120 ... 190     |
| Service temperature, long term          | Average                 | °C                   | -10 ... 100     |
| Service temperature, short term (max.)  | Average                 | °C                   | 135             |
| Vicat softening temperature             | DIN EN ISO 306, Vicat B | °C                   | 65              |
| <b>Electrical properties</b>            |                         |                      |                 |
| Dielectric constant                     | IEC 60250               |                      | 2,5             |

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|  | Test method      | Unit    | Guideline value   |
|--|------------------|---------|-------------------|
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250        |         | 0,00019           |
| 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> |
| 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.



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

