

## Technical Data Sheet

## Polystone® G HD blue extruded

PE-HD / PE 300

### Typical characteristics

- Good weldability
- Easy processing
- Chemical resistant

### Typical industries

- Chemical Processing Industry

|                                                    | Test method             | Unit                 | Guideline value   |
|----------------------------------------------------|-------------------------|----------------------|-------------------|
| <b>General properties</b>                          |                         |                      |                   |
| Density                                            | DIN EN ISO 1183-1       | g / cm <sup>3</sup>  | >0,95             |
| Water absorption                                   | DIN EN ISO 62           | %                    | <0,01             |
| Flammability (Thickness 3 mm / 6 mm)               | UL 94                   |                      | HB                |
| Flammability (Thickness 3 - 10 mm)                 | DIN 4102                |                      | B2                |
| <b>Mechanical properties</b>                       |                         |                      |                   |
| Yield stress                                       | DIN EN ISO 527          | MPa                  | >22               |
| 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              | >60               |
| <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                   | -50 ... 80        |
| Service temperature, short term (max.)             | Average                 | °C                   | 100               |
| Vicat softening temperature                        | DIN EN ISO 306, Vicat B | °C                   | 67                |
| <b>Electrical properties</b>                       |                         |                      |                   |
| Dielectric constant                                | IEC 60250               |                      | 2,4               |
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250               |                      | 0,0004            |
| Volume resistivity                                 | DIN EN 62631-3-1        | Ω * cm               | >10 <sup>14</sup> |



|                            | Test method      | Unit     | Guideline value |
|----------------------------|------------------|----------|-----------------|
| Surface resistivity        | DIN EN 62631-3-2 | $\Omega$ | $>10^{14}$      |
| Comparative tracking index | IEC 60112        |          | 600             |
| Dielectric strength        | IEC 60243        | kV / mm  | $>40$           |

