

## Technical Data Sheet

# Polystone<sup>®</sup> G HD black extruded

PE-HD / PE 300

### Typical characteristics

- Good weldability
- Easy processing
- Chemical resistant
- Good mechanical properties

### Typical industries

- Chemical Processing Industry
- Chemical storage tanks
- Waste Water Technology
- Mechanical Engineering Industry
- Aquafarming
- Working and Recreational Boats
- Ship & Boatbuilding

### Sustainability

- LCA available (ISO 14040/44)

|   | 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             |

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|  | Test method             | Unit    | Guideline value   |
|--|-------------------------|---------|-------------------|
| 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> |
| Surface resistivity                                | DIN EN 62631-3-2        | Ω       | >10 <sup>14</sup> |
| Comparative tracking index                         | IEC 60112               |         | 600               |
| 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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