

## Technical Data Sheet

# Polystone® G B 100 RC black extruded

PE-HD (PE 100)

### Typical characteristics

- Good stress cracking resistance
- Chemical resistant
- Suitable for contact with drinking water

### Typical industries

- Costruzione di serbatoi e impianti chimici
- Plastics for chemical storage tanks

|                                          | 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     | %                    | <0,01           |
| Flammability (Thickness 3 mm / 6 mm)     | UL 94             |                      | HB              |
| Non-toxicity                             |                   |                      | +               |
| MRS classification                       | ISO TR 9080       |                      | PE 100          |
| Approval                                 |                   |                      | DIBt            |
| Melt Flow Rate (MFR 190/5)               | DIN EN ISO 1133   | g / 10 min           | 0,22            |
| Moulding Compound PE                     | DIN ISO 1872-1    |                      | PE-EACH-50T003  |
| <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                  | >1100           |
| Notched impact strength                  | DIN EN ISO 179    | kJ / m <sup>2</sup>  | >16             |
| Shore hardness                           | DIN EN ISO 868    | scale D              | 63              |
| FNCT (4.0 MPa, 2 % Arkopal N 100, 80 °C) | ISO 16770         | h                    | >8760           |
| <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     |

[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)

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|                                                    | Test method             | Unit    | Guideline value   |
|----------------------------------------------------|-------------------------|---------|-------------------|
| 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               |         | 2,5               |
| 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               |
| Arc resistance                                     | IEC 60093               | degree  | L4 (*)            |
| Dielectric strength                                | IEC 60243               | kV / mm | 30                |

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. (\*) literature values