

# PUR - 90 SHORE A



## POLYURETHANE

### Material description

PUR is a plasticiser - free elastomer produced in a casting process. It is available in 70, 80 and 90 Shore A hardness classes. Its outstanding properties include high flexibility, abrasion resistance and tensile strength. PUR can be used over a wide temperature range without any loss of its mechanical properties. PUR is not resistant to hydrolysis and changes colour when exposed to the weather.

### Conformities

RoHS, REACH

| Physical properties | Test method       | Value   | Unit  |
|---------------------|-------------------|---|-------|
| Density             | DIN EN ISO 1183-1 | 1.25  | g/cm3 |
| Water absorbtion    | DIN EN ISO 62     | 0.2   | %     |
| Sliding friction    |                   |  |       |
| Abrasion resistance |                   |  |       |

| Mechanical properties         | Test method    | Value      | Unit  |
|-------------------------------|----------------|------------|-------|
| Yield stress                  | DIN EN ISO 527 | 7          | MPa   |
| Elongation at break           | DIN EN ISO 527 | >300       | %     |
| Tensile modulus of elasticity | DIN EN ISO 527 | 294        | MPa   |
| Notched impact strength       | DIN EN ISO 527 | ohne Bruch | kJ/m2 |

| Thermal properties               | Test method | Value       | Unit                              |
|----------------------------------|-------------|-------------|-----------------------------------|
| Thermal conductivity             | DIN 52612-2 | 0.19        | W/(m*K)                           |
| Heat capacity                    | DIN 52612-1 | 1.69        | kJ/(kg*K)                         |
| Coefficient of thermal expansion | DIN 53752   | 200         | 10 <sup>-6</sup> *K <sup>-1</sup> |
| Operating temperature short term |             | 100         | °C                                |
| Operating temperature long term  |             | - 30 bis 80 | °C                                |

| Electrical properties | Test method | Value            | Unit   |
|-----------------------|-------------|------------------|--------|
| Volume resistivity    | IEC 60093   | 10 <sup>13</sup> | Ω * cm |

These technical data have been determined as average values by our suppliers from many individual measurements. In all measurements, the test specimens were tested in the dry state. We pass on the data with reservation. The table does not claim to be complete or correct. Material technology is subject to constant further development. No rights or guarantees can be derived from it. Own tests are necessary because the environmental and operating conditions (humidity, temperature, mechanical forces, radiation and chemicals, etc.) set limits in the application.