



Wefapress® St 1000® (DIN16972 TG2)

Standard colour(s): natural, black, green

Special colour(s): RAL-K7

Fields of application:

- automobile industry
- mechanical engineering
- transport and conveyor systems
- chemical industry
- paper industry
- cement- and limestone works

Properties:

- low abrasion
- good sliding properties
- high bending- and impact strength
- good chemical resistance

| Material designation | | St 1000® | |
|--|--------------------------|---------------------|--------------------|
| Raw material | PE-UHMW | | |
| Material colour(s) | natural, black, green | | |
| Properties | Unit | Test method | Value |
| Molecular weight (average molar mass) | g/mol | | > 4,4 Mio. |
| Mechanical properties | | | |
| Density | g/cm ³ | DIN 53479 | 0,96 |
| Tensile strength | N/mm ² | DIN 53455 | 27 |
| Shore D hardness, 15s - Value | Skala D | DIN 53505 | 64 – 67 |
| Ball indentation hardness, 30s - Value | N/mm ² | DIN ISO 2039 Part 1 | 38 |
| Ultimate tensile strength | N/mm ² | DIN 53455 | 40,5 |
| Elongation at break | % | DIN ISO / R 527 | 400 |
| Modulus of elasticity | N/mm ² | DIN 53457 | 700 |
| Notched impact strength (Charpy) | kJ/m ² | DIN 53453 | > 80 – 140 |
| Abrasion | % | Sand slurry method | 100 |
| Coefficient of friction | μ | | 0,1 – 0,2 |
| Thermal properties | | | |
| Dimensional stability under heat | °C | DIN 53461 | 47 |
| Vicat softening temperature | °C | DIN 53460 | 79 |
| Crystalline melting range | °C | DTA | 130 – 135 |
| Thermal conductivity at 23 °C | W/ (K * m) | | 0,42 |
| Specific heat at 23 °C | kJ/ (K * Kg) | | 1,8 |
| Coefficient of linear expansion at 23 °C | 10 ⁻⁵ * (1/K) | DIN ISO 11359 | 20 |
| Fire behaviour | | UL 94 | HB |
| Application temperature (min.) | °C | | - 200 |
| Application temperature (constant) | °C | | + 80 |
| Moisture absorption | % | | < 0,01 |
| Electrical properties | | | |
| Specific volume resistance | Ω * cm | IEC 60093 | ≥ 10 ¹⁵ |
| Surface resistance | Ω | IEC 60093 | ≥ 10 ¹⁴ |
| Dielectric strength | kV/mm | IEC 60243 | 45 |
| On request, available with: | | | |
| • approved for foodstuffs according to FDA Guidelines 21CFR177.1520 and 21 CFR178.3297 | | | |
| • complies with regulations (EC) No. 10/2011, 1282/2011 and No. 1935/2004 | | | |