

Data sheet Murdotec 1000 ST

- optimized sliding partner for PET bottles
- no stick-slip effect
- very good shock and impact absorption
- very good antiadhesion properties

Applications: wear-resistant bearings, profiles and segments, chain guides

| Technical properties | (PE-UHMW 1000 ST) | Values | Units | DIN | ISO/EC |
|--|-------------------|---------------------|--------------------|-------|---------------|
| Colour | | natural | | | |
| Molecular weight | | 5x10 ⁶ | g/mol | | |
| Code | | 1.2 | | | 15527:2013 |
| Density | | ≤0,94 | kg/dm ³ | 53479 | 1183 |
| Water absorption – saturation at 23°C | | <0,01 | % | 53715 | |
| Mechanical properties | | | | | |
| Yield/ break stress | | ~20 | MPa | 53455 | 527-2 |
| Breaking elongation | | >200 | % | 53455 | 527-2 |
| Coefficient of elasticity (pulling test) | | >500 | MPa | 53457 | 527-2 |
| Notch impact strength - Charpy | | ≥120 | kJ/m ² | 53453 | 179 |
| Shore hardness D | | 60-62 | ° | 868 | 7619-1 |
| Ball hardness | | >25 | N/mm ² | 53456 | 2039 |
| Sand-Slurry-Test | | 100 | % | | 15527 |
| Coefficient of sliding friction Steel (0,25m/s, 0,25N/mm ²) | | ~0,15 | μ | | |
| Coefficient of sliding friction POM (0,25m/s, 0,25N/mm ²) | | | | | |
| Thermal properties | | | | | |
| Heat conductivity 23°C | | 0,4 | W/(K x m) | 52612 | |
| Linear thermal coefficient of expansion α (average value between 23 und 60 °C) | | 20x10 ⁻⁵ | m/(K x m) | 53752 | 11359-2 |
| Upper service temperature in air | short term | 90 | °C | | |
| | constant (5000h) | 80 | °C | 53446 | 216 |
| Lower service temperature | | -200 | °C | | |
| Burning behavior per UL 94 – sample thickness 3/6 mm | | HB | | | |
| Melting Point | | 130-135 | °C | | 3146 method C |
| Electrical properties | | | | | |
| Electrical strength | | ≤45 | kV/mm | 53481 | 60243 |
| Specific constant resistance | | >10 ¹² | Ω x cm | 53482 | 60093 |
| Surface resistance | | >10 ¹² | Ω | 53482 | 60093 |
| Physiological properties | | | | | |
| Approved for use in food industry (FDA) | | Yes | | | |
| Approved for use in food industry (EU) | | Yes | | | |

The values, shown in this table, enable to compare materials faster. These values are short-term values, which can be influenced by processing, environmental as well as application conditions. Therefore, these values do not represent assured properties. It is due to the customer's responsibility whether the chosen material is suitable for its specific application.

Status 01/2017

Murdotec Kunststoffe GmbH & Co. KG · Heßlingsweg 8 · 44309 Dortmund (Brackel) · Phone: +492314257798-0 · Fax: +492314257798-29

Geschäftsführer: Detlev Höhner, Dipl.-Ing. (FH) Josef Ikemann
 Rechtsform: Kommanditgesellschaft
 Sitz: Dortmund · Registergericht Dortmund, HRA 14026

Persönlich haftende Gesellschafterin:
 Murdotec Kunststoffe Beteiligungs mbH
 Sitz: Dortmund · Registergericht Dortmund, HRB 14610

http:// www.murdotec.de
 E-Mail: info@murdotec.de