

Data sheet Murdotec 1000 white ESD

- very good wear resistance
- very good sliding properties
- very good shock and impact absorption
- static dissipative (ATEX 95 compliant)

Applications: clean room technology, medical technology, electrical engineering, laboratory environment, chain guides

Technical properties <i>(PE-UHMW 1000 white ESD)</i>	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	>250	%	53455	527-2
Coefficient of elasticity (pulling test)	>700	MPa	53457	527-2
Notch impact strength - Charpy	~25	kJ/m ²	53453	179
Shore hardness D	61-64	°	868	7619-1
Ball hardness	>30	N/mm ²	53456	2039
Sand-Slurry-Test	~120	%		15527
Coefficient of sliding friction Steel (0,25m/s, 0,25N/mm ²)	~0,2	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
Lower service temperature	-100	°C		
Burning behavior per UL 94 – sample thickness 3/6 mm	HB			
Melting Point	130-135	°C		3146 method C
Electrical properties				
Electrical strength		kV/mm	53481	60243
Specific constant resistance	≤10 ⁹	Ω x cm	61340-5-1	61340-5-1
Surface resistance	10 ⁶ - 10 ⁹	Ω	61340-5-1	61340-5-1
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.

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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