

Application purpose and characteristics

Particularly suitable for use as sliding and guiding elements in materials handling, plant- and mechanical engineering. Also for applications in harbor- and water engineering, as insulating lining for high-wear stressed areas. Due of the regenerated material cheaper product as PE-UHMW natural.

Great wear resistance, high impact strength and excellent sliding properties even at low temperatures. High abrasion resistance in rough conditions, and good chemical resistance.

Material name, short description	PE-UHMW
Material name, based on technical standards	Polyethylen ultra high molecular weight
Density	.93 g/cm ³
Color	black
Compound code	PE-UHMW Reg.026-01
Remarks	regenerated

Mechanical properties

Yield stress	17 N/mm ² ISO 527-2
Elongation at break	200 % ISO 527-2
Hardness nominal value	62 ±2 Shore D
Ball indentation hardness	≥ 30 N/mm ² ISO 2039-1
Notch impact strength	80.00 kJ/m ² ISO 11542-2 charpy
Coefficient of sliding friction	0.2
Sliding wear	≥130 Sand-Slurry

Thermal attributes

Min. operating temperature	-60 °C
Max. operating temperature long term	80 °C
Coefficient of linear thermal expansion 1	1.5 - 2.0 DIN 53752
Crystalline melting point	130 °C ISO 3146
Thermal conductivity	0.4 W/(m·K)

Other attributes

Water absorption	≤ 0.01 %
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In compliance with **RoHS** and **REACH** directives.

This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.