



# UHMW-PE diet

Ultra-high molecular weight polyethylene

Standard colour: white

- Very good chemical and mechanical properties
- Resistant to mineral oil, HFD-U, HETG = biological base, acid oils and gases, cold water
- Applicable for Rod and Piston Seals, Wiper seals, Rotary Seals and Static Seals

Properties	Value	unit	DIN Standard
density	0,93	g/cm <sup>3</sup>	ISO 1183
density stress	17	MPa	ISO 527
Elongation at rupture	>50	%	ISO 527
Tensile modulus	720	MPa	ISO 527
hardness Rockwell (R/L/M)	D63		ISO 868, ISO 2039-2
Izod test at 23 °C	80	KJ/m <sup>2</sup>	ISO 180/1A
Ball indentation hardness	38	MPa	ISO 2039-1
Thermal conductivity	0,42	W/K m	DIN 52 612
Linear expansion	200	10 <sup>-6</sup> /K	ISO 11359
Melting temperature	132	°C	ISO 11357
Temperature strength A	42	°C	ISO 75 HDT/A 1.8
Temperature strength B	65	°C	ISO 75 HDT/B 0,45
max. service temperature short	120	°C	
max. service temperature constant	80	°C	
min. service temperature	-200	°C	

## Confirmation according FDA

Hereby we, Trygonal, Kunststoffinnovationen GmbH, confirm, that all single components used for our compound named «UHMW-PE diet» are listed on Code of Federal Regulation of U.S. Food and Drug Administration (FDA), Rockville MD. They are mentioned under following subchapters: **FDA § 177.1520, CFR title 21 & 178.2010, CFR title 21**

All above stated data results from random tests which were taken from the ongoing production. All data was established based on standard test-products according to ISO, DIN and ASTM standards and can basically not be carried over to the completed seal.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.