

HPU premium

Hydrolysis-resistant Polyurethane, suitable for foodstuff

Standard colour: red, similar to RAL 3020

- HPU with approval according FDA
- Resistant to mineral oils, HFD-U and HETG-fluids, sour oils and gases, cold water as well as diluted acids and bases
- Applicable for static seals, rod and piston seals, wiper seals and rotary seals

Properties	Value	Unit	DIN Standard
Hardness	95 ± 3	Shore A	DIN ISO 7619-1
Hardness	49 ± 3	Shore D	DIN ISO 7619-1
Density	1,190	g/cm ³	DIN EN ISO 1183-1
100% Modulus	15,3	MPa	DIN 53504
300% Modulus	44,5	MPa	DIN 53504
Elongation at break	382	%	DIN 53504
Tensile strength	49,2	MPa	DIN 53504
Compression set 70°C/22h	20,0	%	DIN ISO 815-1
Compression set 70°C/70h	22,5	%	DIN ISO 815-1
Compression set 100°C/22h	27,9	%	DIN ISO 815-1
Rebound resilience	39	%	DIN ISO 4662:2017
Tear resistance	40,1	N/mm	DIN ISO 34-1 A
Abrasion resistance	28	mm ³	DIN ISO 4649 B
min. Service temperature	- 30	°C	
max. Service temperature	+110	°C	

Confirmation according FDA

Hereby we, Trygonal, Kunststoffinnovationen GmbH, confirm, that all single components used for our compound named «HPU premium» are listed on Code of Federal Regulation of U.S. Food and Drug Administration (FDA), Rockville MD. They are mentioned under following subchapters: **21CFR 177.1680.**

Allowed for contact with foods. Not permitted for medical articles (implants)!

We explicitly point out that the user himself has to undertake tests, which will reassure the adequacy of the material mentioned above for the use in pharmaceutical and medical applications.

All above stated data result from random tests which were taken from the ongoing production. All data were established based on standard test-specimen according to ISO, DIN and ASTM standards and can basically not be carried over to the construction element.

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.