



Technical data sheet

Rev. 10/2025

PTFE II. (15% glass fiber + 5% MoS₂)

Properties	Value	Unit	DIN Standard
Hardness	≥55	Shore D	DIN ISO 7619-1
Density	2,20-3,30	g/cm ³	ASTM D792
Tensile Strength	≥18	N/mm ²	ISO 527
Elongation at Break	≥230	%	ISO 527
Compressive Strength at 1% Deformation	8	N/mm ²	ASTM D695
Deformation under Load at Room Temperature After 24 Hours at 13,7 N/mm ²	≤8	%	ASTM D621
Permanent Deformation Under Load After 24 Hours of Rest at Room Temperature	≤4	%	ASTM D621
Dynamic Coefficient of Friction	0,08-0,18	/	ASTM D1894 ASTM D3702
Wear Factor K	0,015-0,021	/	ASTM D3702
Service Temperature (Min-Max)	-200/+260	°C	/
Thermal Expansion Coefficient (Linear) 25 – 100°C	9-12	10 ⁻⁵ (mm/mm)/°C	Similar to ASTM D696

This is a special compounded PTFE (polytetrafluoroethylene) material that contains about 15 % glass fiber and 5 % molybdenum disulfide (MoS₂) to enhance its performance beyond standard PTFE. Its composition gives it excellent wear resistance and a low coefficient of friction, making it suitable for dynamic sliding and bearing applications where durability and low friction are critical. The addition of glass fiber improves structural strength and dimensional stability, while molybdenum disulfide acts as a solid lubricant to reduce wear and cold flow under load. This PTFE performs well across a wide temperature range (from about -200 °C up to around +260 °C) and retains the chemical inertness typical of PTFE, resisting many corrosive environments. It is commonly used in machined parts, seals, bearings, compressor components, and hydraulic/pneumatic systems, especially in demanding industrial and dry sliding environments.

All data provided above are based on random samples taken from our ongoing production. The results were determined using standard test specimens in accordance with ISO, DIN, and ASTM methods. These results cannot be directly applied to specific finished components.

Any technical information or advice we provide—whether verbal, written, or based on testing—is given to the best of our knowledge. Nevertheless, this information should be regarded as non-binding guidance and does not release the user from the obligation to verify the suitability of our products for their intended process or application. Possible third-party property rights must also be observed.

Since the use, application, and processing of our products take place beyond our control, they remain solely the responsibility of the user. In any case where liability may arise, it shall be limited to damages not exceeding the value of the product supplied and used.

We do, however, guarantee the flawless quality of our products in accordance with our general terms and conditions of sale and delivery.

