

## Material Data Sheet T101-W

### PTFE-P T101 – white (FDA)

#### General

T101-W is a virgin PTFE (Polytetrafluorethylene) commonly referred to as Teflon or TFE in white color. The material has outstanding chemical properties and the lowest coefficient of friction of any solid material. The wide range of temperature (-200°C to +260°C) and the mechanical properties make T101-W a universal material for a wide range of applications. T101-W should not be used for dynamic applications in water.

#### Physical properties

Density:	DIN 53479	g/cm <sup>3</sup>	2,14 – 2,18
Hardness:	ASTM D2240	Shore D	51 - 65
Tensile strength:	DIN 53455	N/mm <sup>2</sup>	25 - 31
Elongation at break:	DIN 53455	%	300 - 400
Ball Hardness H132/6:	DIN 53456	N/mm <sup>2</sup>	22 - 32
Coefficient of friction (dyn.):	ASTM D1894	μ	0,06
Wear factor (K):	ASTM D3702	<sup>3</sup> min 10 <sup>-8</sup> /kg r	29.000
Compr. strength at 1% deformation:	ASTM D695	N/mm <sup>2</sup>	4 - 5
Min. service temperature:		°C	- 200
Max. service temperature:		°C	260
Therm. Exp. Coeff. (lin.) 25-100°:	ASTM D696	10-5/°C	12 - 13

#### Chemical resistance

Water up to 70°	R	Vegetable oils	R
Water up to 90°	R	Fuels	R
HFA	R	Ozone	R
HFB	R		
HFC	R	Air up to 100°	R
HFD	R	Air up to 150°	R
Mineral oils	R	Air up tp 200°	R

**Key to chemical resistance:**    **R = resistant**    **S = suitable**    **U = unsuitable**

#### Main application

Piston / Rod seals with spring or elastomere energizer, rotary seals, back-up rings, special seals and O-rings, high and low temperature applications, chemical resistance required, low friction applications.

#### Analysis and Evaluation

The properties relate to fundamental values of virgin PTFE. Product values mentioned above are corresponding to ASTM or DIN standards and have been tested on standardized plates in the laboratory.