Seal Maker®
The system for flexible seal production

Material Data Sheet T105-G

PTFE-F T105 - grey

General

T105-G is a PTFE (Polytetrafluorethylene) filled with 15% glass and 5% Molybdenum Disulfide (MoS2) in grey colour. Due to the filling, the material is more resistant to “cold flow” and provides the necessary properties to be used as composite seals with energizer to withstand high pressures. It has a similar chemical resistance like virgin PTFE and can be used in the same temperature range, which makes it a very universal sealing material. T105-G should not be used for dynamic applications in water.

Physical properties

Density:	DIN 53479	g/cm^3	2,1 - 2,3
Hardness:	DIN 53505	Shore D	55 - 60
Tensile strength:	DIN 53455	N/mm^2	14 - 20
Elongation at break:	DIN 53455	%	200 - 220
Ball Hardness H132/6:	DIN 53456	N/mm^2	43
Coefficient of friction (dyn.):	ASTM D1894	µ	0,08
Wear factor (K):	ASTM D3702	$cm^3min10^{-8}/kg\ m\ h$	10 - 20
Compr. strength at 1% deformation:	DIN 53454	N/mm^2	8,5 - 9
Therm. Exp. Coeff. (lin.) 25-100°:	DIN 53328	$10^{-5}/°C$	9 - 12
Min. service temperature:		°C	- 200
Max. service temperature:		°C	260

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 to 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 PTFE. Product values mentioned above are corresponding to ASTM or DIN standards and have been tested on standardized plates in the laboratory.

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