

Material Data Sheet AF101-B85

AFLAS* AF101 – black (bisphenol cross linked)

General

AF101-B85 is a Tetrafluorethylene/Propylene copolymer (TFE/P), commonly referred to as FEPM or AFLAS*. AFLAS* has a very high resistance to hydraulic fluids (incl. Alkyl-Acryl-Phosphate Esters), all break fluids (on glycol, mineral and silicone base), acids, steam and hot water, sour oils/gases (H₂S) and heavily formulated oils with amine additives.

Physical properties

Density:	DIN 53479	g/cm ³	1,68
Hardness at 20°:	DIN 53505	Shore A	85 +/-5
Tensile strength:	DIN 53504	N/mm ²	7,2 +/-15%
Elongation at break:	DIN 53504	%	236 +/-20%
Modulus 100%:	DIN 53504	N/mm	4,2 +/-30%
Tear strength	DIN 53507B	N/mm	7,2
Compression set: 70h/RT	DIN 53517A	%	27,0 +/-20%
Compression set: 22h/70°C	DIN 53517A	%	24,7 +/-20%
Compression set: 22h/100°C	DIN 53517A	%	19,8 +/-20%
Compression set: 24h/175°C	DIN 53517	%	24,5 +/-20%
Min. service temperature:		°C	-15
Max. service temperature:		°C	210
Short time max. service temp. in air:		°C	280

Chemical resistance

Water up to 90°	R	Ozone	R
Steam	R	Break Fluids	R
HFA, HFB fluids	R	Solvents	S
HFC, HFD fluids	R	Air up to 200°	R
Mineral oils	R		
Vegetable oils	R		
Fuels	S		

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

Main application

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). Applications where high temp. and/or chemical resistance is required, oil and gas industry.

Analysis and Evaluation

The mentioned properties are only valid for test pieces of the corresponding ISO, DIN and ASTM standards. They cannot be directly related to seals, gaskets and other sealing products and should be used only as a general guide.

*) AFLAS is a reg. trademark of Asahi Glass Co./Japan.