

# AFG

New product line of non-asbestos screens for the highest thermal applications.



## Non-asbestos screens on the basis of synthetic fibers.

AFG flat gaskets provide excellent sealing characteristics and stability of size. They are manufactured out of a mixture of synthetic fibers, filling materials and elastomers. They are regardful of the living environment and fulfill the strictest ecological standards. The wide range of application predestinates them to be applied in different fields of industry.

### AFG – 150 LT

The screen is manufactured on the base of inorganic fibers connected with NBR. This screen has a wide range of application in all branches of industry.



### AFG – 330 MT

New type of screen manufactured on the base of aramid fibers with excellent immunity to heat and compression resistance. For its withstand capability it can be applied in different fields of industry – chemical, food processing or engineering industry.



- 1 – recommended field of application
- 2 – extended field of application/consultation recommended
- 3 – this field of application needs to be consulted

General information:		AFG-150 LT	AFG-330 MT
Color		red	blue
maximum temperature * short term	°C	210	450
permanent	°C	150	330
Maximum pressure	MPa	4	12
Technical characteristics /hr.2mm/:			
Density / DIN 28 090 -2	g/cm <sup>3</sup>	1.6-1.9	1.7-2.0
Maximum of annealing loss / ASTM F 495	%	40	25
Constancy of pressure 16h/175°C / DIN 52 913	MPa	20	32
Minimum restoration / ASTM F 36-J	%	50	55
Compressibility / ASTM F 36-J	%	15-25	5-15
Specific quantum of untightness / DIN 3535-6/99	mg/(s.m)	0.1	0.04
Resistance to influence of liquids.			
Oil IRM 903 (5 hours/150°C) / ASTM F 146	%	5	3
ASTM liquid B (5 hours/150°C) / ASTM F 146	%	10	5
Range of thickness	mm	0.5-5.0	0.5-5.0
Size of screens:	mm	1500x1500	1500x1500

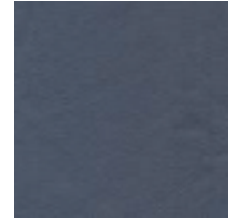
\* concurrent usage of both maximum values is not conceded.

## Screens manufactured out of expanded graphite.

Graphite sealing hardened by filler ensures a high degree of compatibility as well as industrial security. They are especially appropriate for high temperatures, pressures, steam and for wiring stressed by alternating temperature cycles.

### AFG-500 Alu

Material is based on 98% of pure graphite film which is reinforced by flat aluminium core. We recommend this material for a wide range of applications with an exception of strong oxidizing environment. Natural softness and adaptability of the material allows using AFG-500 Alu on damaged and rusted flanges.



### AFG-500 Nik

Material is based on highly pure graphite laminate which is reinforced by a thin nickel film. It is suitable for general usage, in a steam environment and for most of the chemicals. It is not suitable for an oxidizing environment. We recommend this material for its easy processing /cutting/.

### AFG-500 HT

AFG-500 HT is high class screen reinforced by filling made out of perforated rustless steel. It is suitable for using under high service temperatures and in the same time it resists big pressure changes in a long term.

It is suitable for wide range of application under extreme conditions of steam distribution, in the chemical and petrochemical industry.

Technical information:		AFG-500 Alu	AFG-500 Nik	AFG-500 HT
Color		grey	grey	grey
maximum temperature	°C	500	500	500
*oxidizing environment				
*steam	°C	650	650	650
*inert environment	°C	600	1000	1500
Maximum pressure*	MPa	14	14	15
Material of the filling		aluminium film	nickel film	rustless steel
Thickness of the filling	mm	0,05	0,013	0,1
Compressibility / ASTM F 36A-66	%	40	30-40	30-40
Restoration minimum / ASTM F 36A-66	%	15	15	15-20
Chloride content	ppm	≤ 50	≤ 50	≤ 50
Range of thickness	mm	0.5-5.0	0.5-5.0	
Size of screens:	mm	1500x1500	1500x1500	

\* concurrent usage of both maximum values is not conceded.

**Chemical resistance table:**

	AFG-150 LT	AFG-330 MT	AFG-500 Alu	AFG-500 Nik	AFG-500 HT
Acetone	B	B	A	A	A
Acetylene	A	A	A	A	A
Benzene	B	A	A	A	A
Benzine	B	A	A	A	A
Sugar	A	A	A	A	A
Hexanone	B	A	A	A	A
Cyclohexanone	C	B	A	A	A
Ammonia	B	A	A	A	A
Dibutyl phthalate	A	A	A	A	A
Nitrogen	A	A	A	A	A
Ethylene	A	A	A	A	A
Ethylene glycol	B	A	A	A	A
Ethylether	A	A	A	A	A
Phenol	C	C	A	A	A
Glycerine	A	A	A	A	A
Ammonium secondary phosphate	B	A	A	A	A
Natrium bisulphate	B	A	A	A	A
Natrium bicarbonate	B	A	A	A	A
Natrium hydroxide	B	B	A	A	A
Calcic hydroxide	B	A	A	A	A
Dry chlorine	B	A	A	A	A
Baric chloride	A	A	A	A	A
Aluminic chloride	A	A	C	C	C
Natrium chloride	A	A	B	B	B
Chloroform	C	B	A	A	A
Dry hydrogen chloride	B	A	B	B	B
Isooctane	B	A	A	A	A
Potassium iodide	A	A	A	A	A
Potassium cyanide	B	A	A	A	A
Boric acid	B	A	A	A	A
Nitric acid (20%)	C	C	B	B	B
Hydrochloric acid (20%)	C	B	A	A	A
Formic acid (10%)	B	A	A	A	A
Acetic acid (100%)	C	A	A	A	A
Sulphuric acid (30%)	C	C	B	B	B
Tartaric acid	A	A	A	A	A
Methylene dichloride	C	C	A	A	A
Petroleum	B	A	A	A	A
Hydraulic and mineral oil	B	A	A	A	A
Carbon dioxide	A	A	A	A	A
Steam	B	A	A	A	A
Paraffin oil	B	A	A	A	A
Earth gas	A	A	A	A	A
Earth oil	C	A	A	A	A
Silicone oil	B	A	A	A	A
Cupric sulphate	A	A	A	A	A
Natrium sulphate	A	A	A	A	A
Turpentine	A	A	A	A	A

Tetrachlormethane	C	B	A	A	A
Toluene	C	A	A	A	A
Transformer oil	B	A	A	A	A
Bicarbonate	A	A	A	A	A
Drinking water	A	A	A	A	A
Air	A	A	A	A	A
Xylene	B	A	A	A	A

A – resistant /application is recommended/

B – relatively resistant /application according to the service environment/

C – not resistant /inapplicable/

Should you use a different material, please contact our technical department.

Note:

All information presented in this brochure are given in good faith, based on the newest findings and have only informative character.