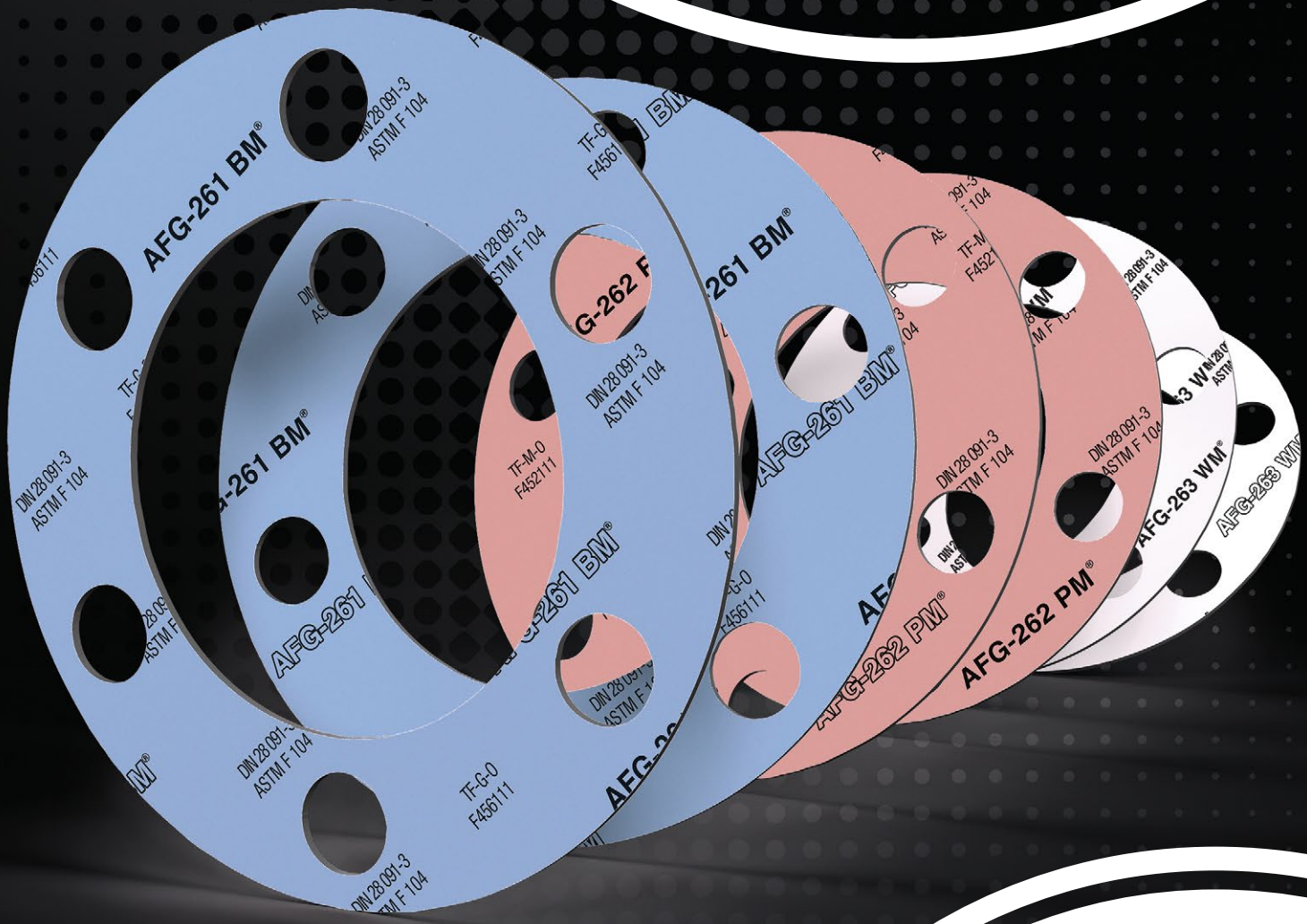
AFINIS®
group

BIAXIALLY ORIENTED PTFE SHEETS

AFG 261® – 266®



AFINIS TRADE®
business activity

ABOUT US

The company Afinis Group® offers comprehensive solutions and services in the field of seals and sealing technologies.

For almost three decades, we have been here for you, our customers, with professional products, services and innovative solutions tailor-made for each customer.

We use the modern technologies and trends, the right combination and application of which will ensure our clients optimal and efficient solution to the client's service and production requirements.

As part of our Afinis Trade® product line, focused on a wide range of products designed to meet your needs, whether you are in the field of industry, maintenance or service, we offer a new series of biaxially oriented PTFE sealing sheets AFG 261® – 266® with excellent chemical resistance and with optimal sealing performance.

WHAT IS PTFE AND WHY TO USE MODIFIED PTFE?

PTFE

PTFE, also known as polytetrafluoroethylene, is a high-performance synthetic fluoropolymer of tetrafluoroethylene. The best-known brand of products based on PTFE is Teflon®.

PTFE is a thermoplastic polymer with a density of approximately 2.160 kg/m³. It acquires its properties through the combined effect of carbon-fluorine bonds, just like all fluorinated hydrocarbons. The basic difference is that this material cannot be processed by melting, while all other fluoropolymers are.

Thanks to its low coefficient of friction, it is an excellent choice in applications that require anti-adhesion properties or are sensitive to wear. However, these are far from the only advantages. PTFE shows high resistance to temperature, chemicals, even UV radiation.

A variety of compounds are available on the market. Various fillers are used to improve the original properties: glass fiber, carbon, graphite, bronze, stainless steel, mica.

Pure PTFE has a wide range of applications: PTFE coatings for heat exchangers, electrical insulation, O-rings, seals, seats and bearings, for non-stick surfaces, fuel hose linings...

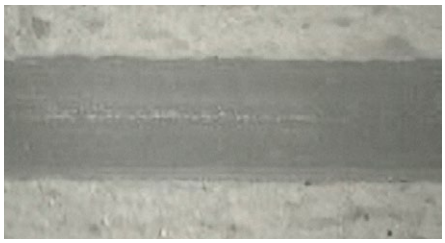
MODIFIED PTFE

Where the properties of standard PTFE are not enough, there is room for a higher quality, more powerful and more efficient version of the material - modified PTFE. Its main advantage is better chemical resistance, minimum cold creep and minimization of material overflow.

Modified PTFE has a high stability in the environment, which extends its service life, and thus reduces its costs for the frequency of replacement during shutdowns, resulting in financial savings.

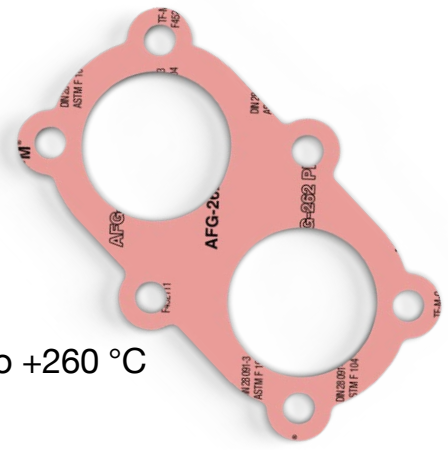
biaxially oriented structure

microcell structure



multilayer structure

BENEFITS OF THE MODIFIED PTFE



- Excellent chemical resistance (pH 0 to 14)
- Minimal cold flow
- Minimizes material overflow when tightening the screw (creep)
- Can be used in combination with high pressure/temperature
- Temperature range from cryogenic temperatures from -260 °C to +260 °C
- Excellent stability of dimensions under thermal stress
- Electrical insulating properties
- High resistance to abrasion, weathering and UV radiation

COMPLEX SERIES OF MODIFIED AFG SHEETS

As part of our **AFINIS TRADE®** product line, we offer a **comprehensive range of high-performance biaxially oriented sealing sheets AFG 261® – 266®**. They contain modified PTFE or microcellular modified PTFE with many different fillers. The sealing modified PTFE sheets are suitable for sealing in the entire range of pH environments.

A range of modified sealing sheets are recommended wherever chemical resistance or food safety is paramount.

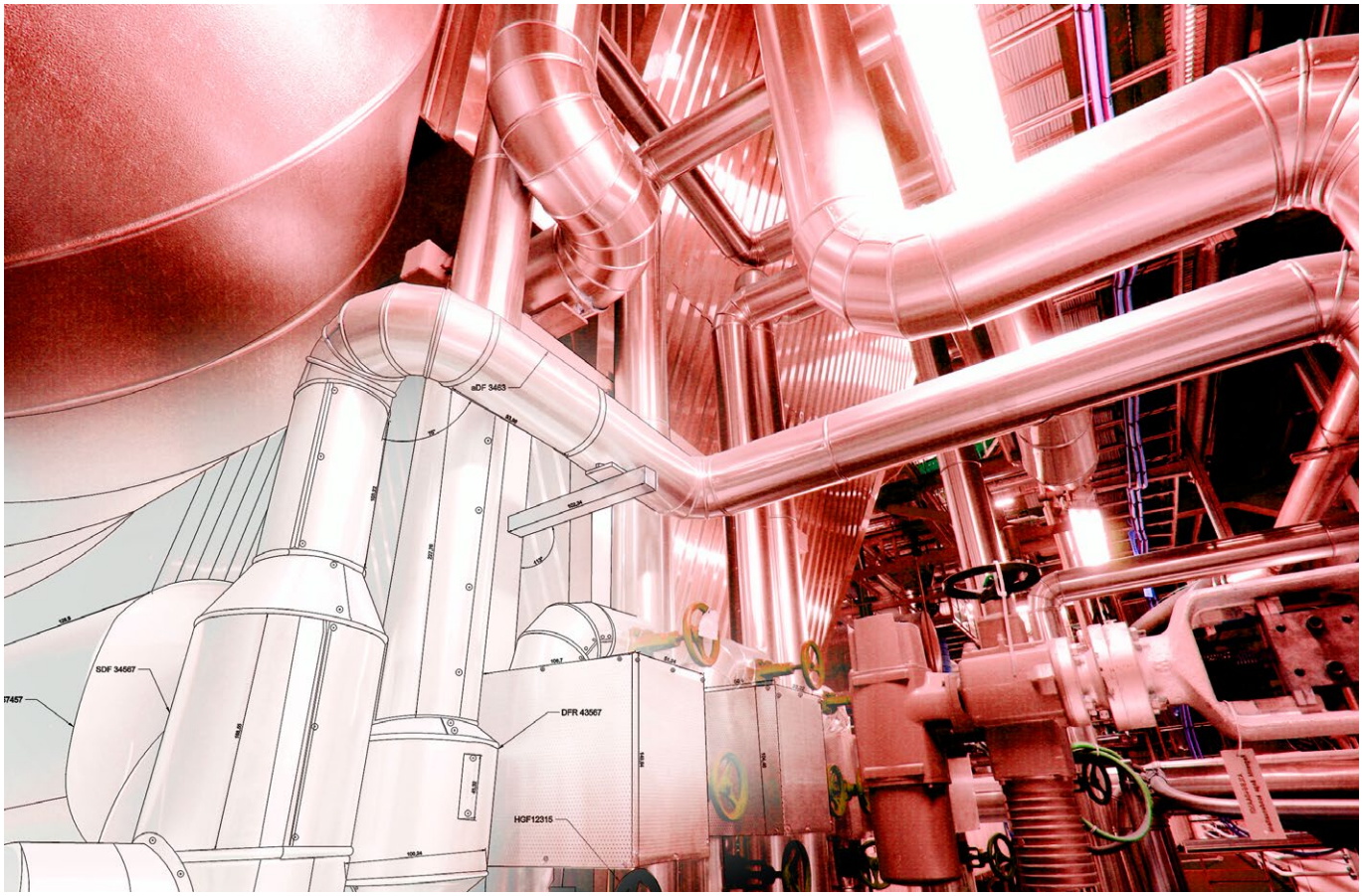
Our biaxially oriented PTFE sealing sheets are a combination of material with excellent chemical resistance and excellent insulating properties, in addition, they have a low coefficient of friction.

They are the ideal solution for achieving the lowest cold flow value and seal integrity in cases where minimal leakage is essential and conventional materials are not suitable. They withstand high temperatures and have excellent anti-adhesion properties.

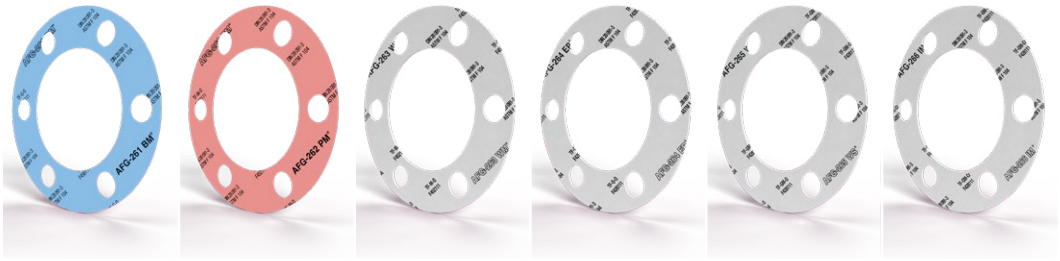
The materials are produced by a patented process and have a specially controlled microporosity and closed cell structure.

Materials from **the AFG 261® – 266®** product range achieve high tightness at low screw torque values. They are suitable for applications with irregular sealing surfaces with reduced load-bearing capacity or with replacement of packaging seals.

Modified PTFE sealing sheets have a wide range of globally recognized certificates, for example TA LUFT, DVGW, BAM, FDA and others.



TECHNICAL PARAMETERS



	AFG-261 BM®	AFG-262 PM®	AFG-263 WM®	AFG-264 EP®	AFG-265 WS®	AFG-266 IM®
Designation according to	F456111 (ASTM F 104)	F452111 (ASTM F 104)	F452111 (ASTM F 104)	F428111 (ASTM F 104)	F428111 (ASTM F 104)	F428111 (ASTM F 104)
	TF-G-O (DIN 28 091-3)	TF-M-O DIN 28 091-3	TF-M-O DIN 28 091-3	TF-O-O (DIN 28 091-3)	TF-O-O (DIN 28 091-3)	TF-GM-Cr (DIN 28 091-3)
Maximum temperature (°C)	-260 – +260	-260/+260	-260/+260	-260/+260	-260/+260	-260/+260
Maximum pressure (Bar)	50	80	80	200	80	170
Density (g/cm³) DIN 3535-6	1,4	2,2	2,8	0,8	1,3	1,2
Compressibility (%) DIN 3535-6	> 32	> 4	> 4,3	> 58	> 44	> 41
Regeneration (%) DIN 3535-6	> 7	> 1,7	> 2,1	> 18	> 6,3	> 6
pH range	0 – 14	0 – 14	0 – 14	0 – 14	0 – 14	0 – 14
Creep (%) DIN 3535-6	< 19	< 24	< 28	< 65	< 26	< 5
Gas permeability (leakage) (mg*s-1*m-1) DIN 3535-6	< 0,05	< 0,05	< 0,005	–	< 0,002	< 0,01
Tensile strength (MPa) ASTM F152	8 – 14	10 – 17	10 – 14	22	5 – 9	–
Purity (%)	70 – 95	50 – 75	40 – 65	–	70 – 95	–
Filler content (%)	5 – 30	25 – 50	35 – 60	–	5 – 30	–
Permeability class (mbar.l/(s.m)) TA LUFT VD/2440	–	–	–	$9{,}2*10^{-7}$	–	–
Number of inserts (pc) 316L	–	–	–	–	–	1
Dimension (mm)	1 500 x 1 500 1 000 x 1 000	1 500 x 1 500 1 000 x 1 000	1 500 x 1 500 1 000 x 1 000	1 500 x 1 500 1 000 x 1 000	1 500 x 1 500	1 500 x 1 500
Dimension tolerance (mm)	+/- 50	+/- 50	+/- 50	+/- 50	+/- 50	+/- 50
Width tolerance (%)	+/- 10	+/- 10	+/- 10	+/- 10	+/- 10	+/- 10
Colour	blue	pink	white	white	white	white

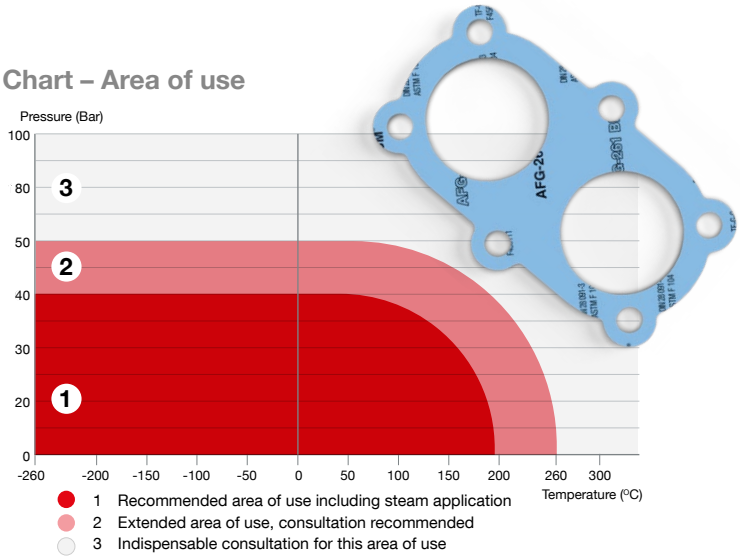
Standard material thicknesses are 1-6 mm, other thicknesses are available on request

THE MOST USED PTFE SHEETS

AFG-261 BM®

The sealing sheet **AFG-261 BM®** is made of biaxially oriented PTFE, filled with thick glass microbeads.

The sealing sheet **AFG-261 BM®** has excellent sealing properties due to its increased compressive strength with low screw engagement, making it an ideal sheet for uneven surfaces in pipes with glass or ceramic lining. It has high adaptability and gas tightness even with a small surface area and at the same time fulfills the criteria for escaping emissions such as the TA LUFT certificate. It also has an FDA certificate for the food industry. In addition, it has improved flexibility compared to non-calendered ones and graphite sheets. Thanks to its perfect chemical resistance. it is suitable for all the chemicals in the whole range of pH 0 – 14.

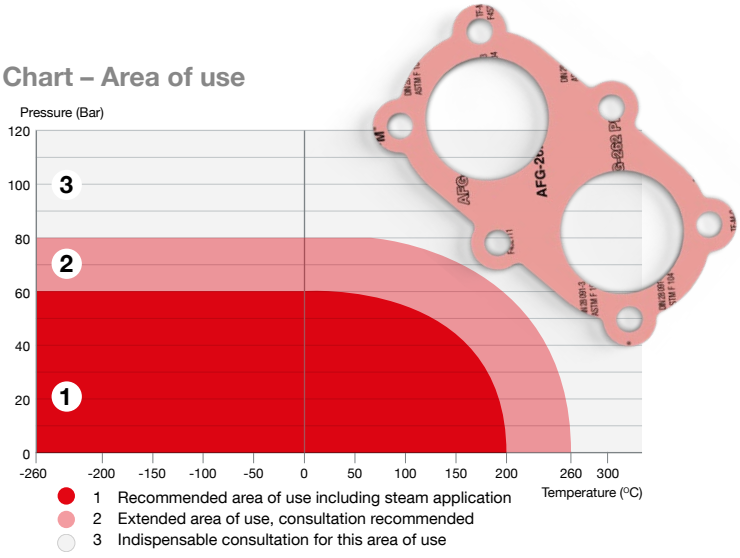


AFG-262 PM®

The sealing sheet **AFG-262 PM®** is made of biaxially oriented PTFE, filled with silicon filler.

The sealing sheet **AFG-262 PM®** has excellent chemical properties that predetermine it especially for the use in the chemical industry, especially with strong acids (except hydrofluoric acid).

Good mechanical properties at medium temperatures of use, pressure entrapment and economic availability predermined the **AFG-262 PM®** sheet for wide use. According to the worldwide BAM certificate, it is suitable for use in highly explosive environments and where are acids and peroxides.

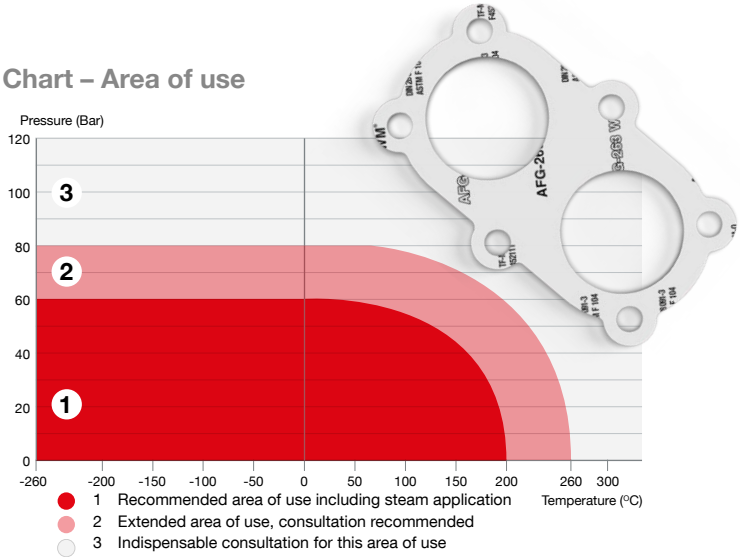


AFG-263 WM®

The sealing sheet **AFG-263 WM®** is made of biaxially oriented PTFE, filled with barium disulphate.

The sealing sheet **AFG-263 WM®** has excellent chemical properties, especially in strongly alkaline applications. It is pigment-free (colorless), that is, developed and designed directly for the food and pharmaceutical industry.

This material meets FDA regulations and is safe for use in aqueous hydrofluoric acid below 49%, but is not suitable for sealing molten alkali metals or fluorine gas.



THE MOST USED PTFE SHEETS

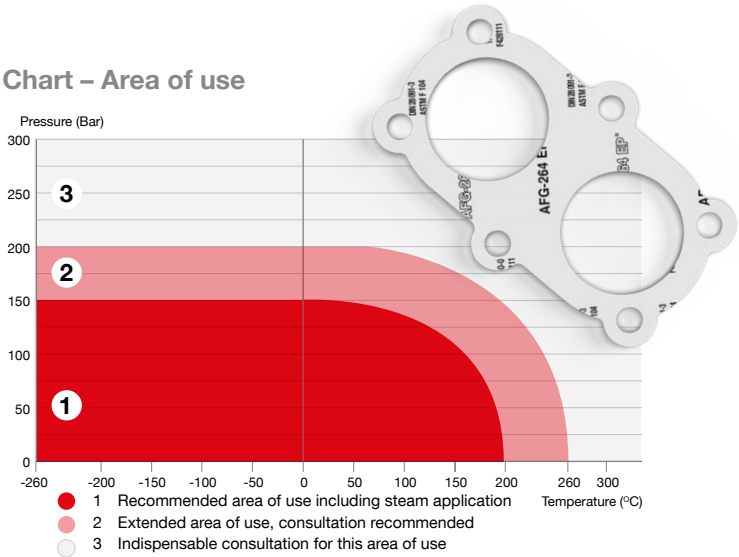
AFG-264 EP®

The sealing sheet **AFG-264 EP®** is made of biaxially oriented expanded 100% PTFE.

The **AFG-264 EP®** sealing sheet is made of a soft material with excellent sealing properties, which exclude the “cold creep” factor and guarantee long-term and reliable sealing.

Thanks to its unique structure, the sheet is characterized by a high level of compression, it easily adapts to the surface, therefore it is suitable for sealing pipes that have a damaged surface.

Chart – Area of use

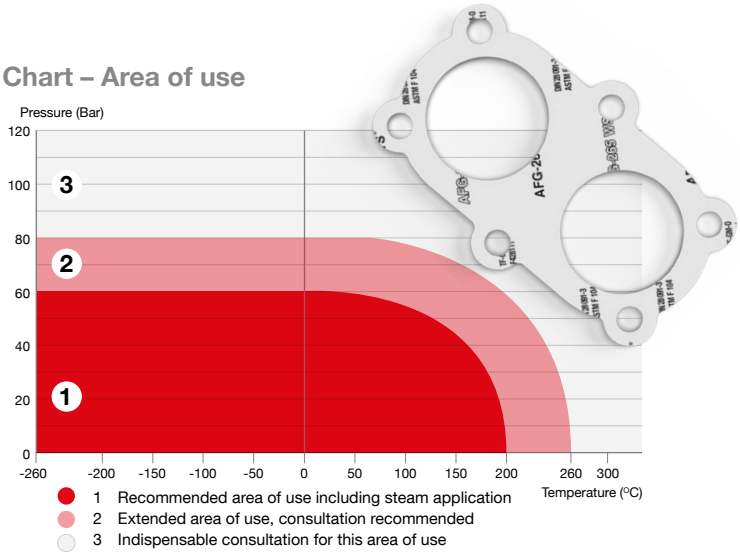


AFG-265 WS®

The sealing sheet **AFG-265 WS®** is made of layers of microcellular modified PTFE with a pure modified PTFE core.

The sealing sheet **AFG-265 WS®** has a unique cellular structure, which is intended for damaged contact surfaces with a low phase. The high-quality layered structure increases the dimensional stability and helps with the installation of a larger seal, when the layers of the sheet are connected by sintering. There is no adhesive layer or possible escape routes. The flexibility of the sheet makes it possible to be used easily in various applications.

Chart – Area of use

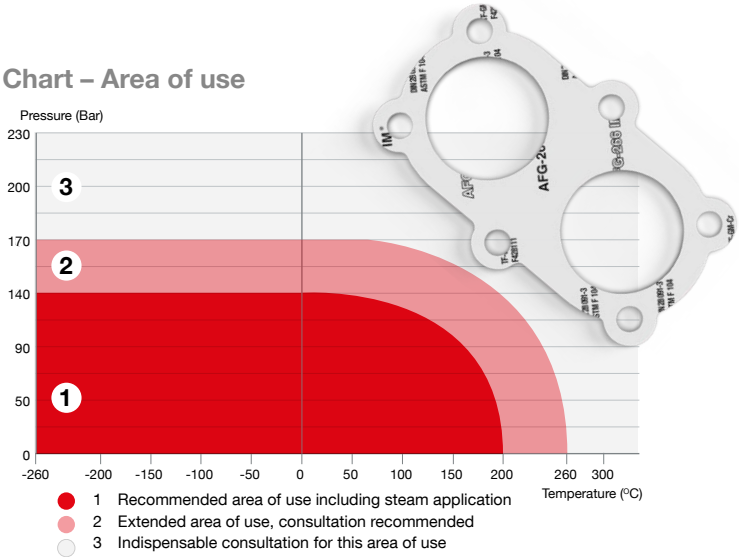


AFG-266 IM®

The sealing sheet **AFG-266 IM®** is made of microcellular modified PTFE with a stainless steel core 316L.

The sealing sheet **AFG-266 IM®** has a unique cellular structure, which is designed for damaged contact surfaces and for high pressure applications. Thanks to its unique production technology, the flow of this sheet is minimal, therefore it is suitable for vertical pipes.

Chart – Area of use



INSTALLATION – RECOMMENDATIONS

1 FIRST CHECK

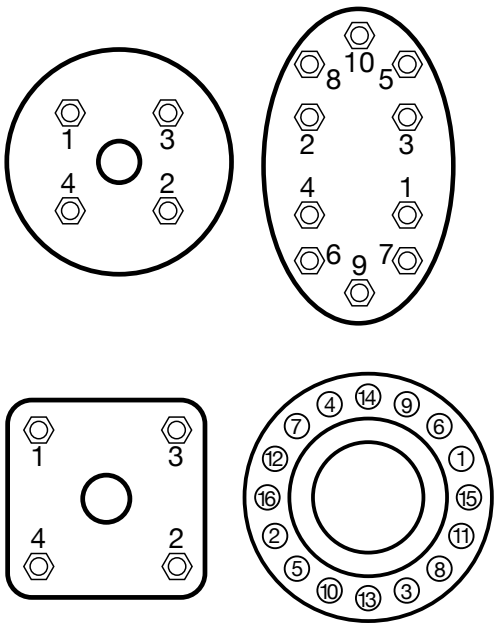
- Is the selected material suitable for the given application?
- Do the temperature and pressure match with the process data?
- Doest the seal have the correct dimensions, thickness, internal and external components dimension?
- The screws can supply the seal with the necessary seating tension?
- Was the torque of the screws calculated correctly?

2 BEFORE INSTALLATION

- Remove the old seal and clean the surface of the pipe from all impurities. To achieve the best results, use the metal flange scraper, remover of the aerosol seal and wire brush suitable for the flange. Then check the flange if it is not damaged and ensure that the surface treatment and the surface smoothness are satisfactory.
- Use the tightest seal possible. In the case that the pipes are twisted, bent or heavily pitted, thicker seals will be required.
- If possible, use O-rings on metric threads. Full face seals have a larger area, which requires additional pressure charge.
- Never use anti-seizing agents on the meta base because their particles can accumulate in the imperfections of the surface, creating a surface that is too smooth to be effective. In addition, such coatings will also worsen the resistance of the seal.

3 INSTALLATION

- Center the seal on the pipe, which is especially important if there are raised surfaces. Note: if the standard O-rings are correctly aligned, they should center themselves.
- Use a torque wrench and a well-lubricated connecting elements with hardened surface washers to ensure correct initial engagement.
- Tighten the screw in a star pattern so that the gasket compresses evenly, this means extending it from side to side around the joint.
- All the screws should be tightened in third increments according to the correct screw patterns:
  a) initially to 30% of the specified torque
  b) in the second step to 70% of the specified torque
  c) in the third step to 100% of the specified torque
  d) in fourth step clockwise with 100% torque
- We recommend not to tighten the system. If you still need to tighten it, consider it before finishing it 12 to 24 hours to cool to room temperature.
- Follow all applicable safety standards during installation including lockout/tagout.
- Never use liquids or metals on the seals or antiadhesion lubricating compounds, because it could lead to premature failure.



CHEMICAL COMPATIBILITY GUIDE

	AFG-261®	AFG-262®	AFG-263®	AFG-264® AFG-265®	AFG-266®
Acetaldehyde	●	●	●	●	●
Acetamide	●	●	●	●	●
Acetic Acid	●	●	●	●	●
Acetic Anhydride	●	●	●	●	●
Aceton	●	●	●	●	●
Acetonitrile	●	●	●	●	●
Acetophenone	●	●	●	●	●
Acetylaminofluorene	●	●	●	●	●
Acetylene	●	●	●	●	●
Acrolein	●	●	●	●	●
Acrylamide	●	●	●	●	●
Acrylic Acid	●	●	●	●	●
Acrylic Anhydride	●	●	●	●	●
Acrylonitrile	●	●	●	●	●
Adipic Acid	●	●	●	●	●
Adiponitrile	●	●	●	●	●
Air	●	●	●	●	●
Allyl Acetate	●	●	●	●	●
Allyl Chloride	●	●	●	●	●
Allyl Methacrylate	●	●	●	●	●
Aluminum Chloride	●	●	●	●	●
Aluminum Fluoride	●	●	●	●	●
Aluminum Hydroxide (Solid)	●	●	●	●	●
Aluminium, Molten	●	●	●	●	●
Aluminum Nitrate	●	●	●	●	●
Aluminum Sulfate	●	●	●	●	●
Alums	●	●	●	●	●
Arninodiphenyl	●	●	●	●	●
Ammonia, Gas, 70°C and below	●	●	●	●	●
Ammonia, Gas, Above 70°C	●	●	●	●	●
Ammonia, Liquid, Anhydrous	●	●	●	●	●
Ammonium Chloride	●	●	●	●	●
Ammonium Hydroxide	●	●	●	●	●
Ammonium Nitrate	●	●	●	●	●
Ammonium Phosphate, Monobasic	●	●	●	●	●
Ammonium Phosphate, Dibasic	●	●	●	●	●
Ammonium Phosphate, Tribasic	●	●	●	●	●
Ammonium Sulfate	●	●	●	●	●
Amyl Acetate	●	●	●	●	●
Amyl Alcohol	●	●	●	●	●
Aniline, Aniline Oil	●	●	●	●	●
Aniline Hydrochloride	●	●	●	●	●
Aniline Dyes	●	●	●	●	●
Misidine	●	●	●	●	●
Antinomy trichloride	●	●	●	●	●
Aqua Regia	●	●	●	●	●
Aroclors or Arochlor	●	●	●	●	●
Aromatic Hydrocarbons	●	●	●	●	●
Arsenic Acid	●	●	●	●	●
Arseneous Acid	●	●	●	●	●
Asphalt	●	●	●	●	●
Aviation Gasoline	●	●	●	●	●
Barium Chloride	●	●	●	●	●
Barium Hydroxide	●	●	●	●	●
Barium Sulfide	●	●	●	●	●
Baygon	●	●	●	●	●
Beer	●	●	●	●	●
Benzaldehyde	●	●	●	●	●
Benzene, Benzel	●	●	●	●	●
Benezene Sulphonic Acid	●	●	●	●	●
Benzidine	●	●	●	●	●
Benzoic Acid	●	●	●	●	●
Benzonitrile	●	●	●	●	●
Benzoquinones	●	●	●	●	●
Benzotrichloride	●	●	●	●	●
Benzoyl Chloride	●	●	●	●	●
Benzyl Aicohol	●	●	●	●	●
Benzyl Chloride	●	●	●	●	●
Bio-diesel (B100)	●	●	●	●	●
Biphenyl	●	●	●	●	●
Bis(2-chloroethyl)ether	●	●	●	●	●
Bis(chloromethil)ether	●	●	●	●	●
Bis(2-ethilhexyl)phthalate	●	●	●	●	●
Black Sulfate Liquor	●	●	●	●	●
Blast Furnace Gas	●	●	●	●	●
Bleach (Sodium Hyprochlorite)	●	●	●	●	●
Boiler Feed Water	●	●	●	●	●
Borax	●	●	●	●	●
Boric Acid	●	●	●	●	●
Brine (Sodium Chloride)	●	●	●	●	●
Bromine	●	●	●	●	●
Bromine Trifluoride	●	●	●	●	●
Bromoform	●	●	●	●	●
Bromomethane	●	●	●	●	●
Butadiene	●	●	●	●	●
Butane	●	●	●	●	●
Butanone	●	●	●	●	●
Butyl Acetate	●	●	●	●	●
Butyl Alcohol, Butanol	●	●	●	●	●
Butyl Amine	●	●	●	●	●
tert-Butyl Smine	●	●	●	●	●
Butyl Methacrylate	●	●	●	●	●
Butyric Acid	●	●	●	●	●

	AFG-261®	AFG-262®	AFG-263®	AFG-264® AFG-265®	AFG-266®
Calcium Bisulfite	●	●	●	●	●
Calcium Chloride	●	●	●	●	●
Calcium Cyanamide	●	●	●	●	●
Calcium Hydroxide	●	●	●	●	●
Calcium Hypochlorite	●	●	●	●	●
Calcium Nitrate	●	●	●	●	●
Cane Sugar Uquors	●	●	●	●	●
Caprolactam	●	●	●	●	●
Captan	●	●	●	●	●
Carbaryl	●	●	●	●	●
Carbolic Acid, Phenol	●	●	●	●	●
Carbon Dioxide, Dry	●	●	●	●	●
Carbon Dioxide, Wet	●	●	●	●	●
Carbon Disulfide	●	●	●	●	●
Carbon Monoxide	●	●	●	●	●
Carbon Tetrachloride	●	●	●	●	●
Carbonic Acid	●	●	●	●	●
Carbonyl Sulfide	●	●	●	●	●
Castor Oil	●	●	●	●	●
Catechol	●	●	●	●	●
Caustic Soda	●	●	●	●	●
Cetane (Hexadecane)	●	●	●	●	●
China Wood Oil	●	●	●	●	●
Choramben	●	●	●	●	●
Chlorazotic Acid (Aqua Regia)	●	●	●	●	●
Chlordane	●	●	●	●	●
Chlorinated Solvents, Dry	●	●	●	●	●
Chlorinated Solvents, Wet	●	●	●	●	●
Chlorine, Dry	●	●	●	●	●
Chlorine, Wet	●	●	●	●	●
Chlorine Dioxide	●	●	●	●	●
Chlorine Trifluoride	●	●	●	●	●
Chloroacetic Acid	●	●	●	●	●
Chloroacetophenone	●	●	●	●	●
Chlorobenzene	●	●	●	●	●
Chlorobenzilate	●	●	●	●	●
Chloroethane	●	●	●	●	●
Chloroethylene	●	●	●	●	●
Chloroform	●	●	●	●	●
Chloromethil Methil Ether (CMME)	●	●	●	●	●
Chloronitrous Acid (Aqua Regia)	●	●	●	●	●
Chloroprene	●	●	●	●	●
Chlorosulfonic Acid	●	●	●	●	●
Chromic Acid	●	●	●	●	●
Chromic Anhydride	●	●	●	●	●
Chromium Trioxide	●	●	●	●	●
Citric Acid	●	●	●	●	●
Coke Oven Gas	●	●	●	●	●
Copper Chlolide	●	●	●	●	●
Copper Sulfate	●	●	●	●	●
ComOil	●	●	●	●	●
Cotton Seed Oil 10	●	●	●	●	●
Creosote	●	●	●	●	●
Cresols, Cresylic Acid	●	●	●	●	●
Crotonic Acid	●	●	●	●	●
Crude Oil	●	●	●	●	●
Cumene	●	●	●	●	●
Cyclohexane	●	●	●	●	●
Cyclohexanol	●	●	●	●	●
Cyclohexanone	●	●	●	●	●
Diazomethane	●	●	●	●	●
Dibenzofuran	●	●	●	●	●
Dibenzilether	●	●	●	●	●
Dibromo chloropropane	●	●	●	●	●
Dibromoethane	●	●	●	●	●
Dibutyl Phthalate	●	●	●	●	●
Dibutyl Sebacate	●	●	●	●	●
Dichlorobenzene	●	●	●	●	●
Dichlorobenzidene	●	●	●	●	●
Dichloroethane	●	●	●	●	●
Dichloroethylene	●	●	●	●	●
Dichloroethil Ether	●	●	●	●	●
Dichloromethane	●	●	●	●	●
Dichloropropane	●	●	●	●	●
Dichloropropene	●	●	●	●	●
Dichlorvos	●	●	●	●	●
Diesel Oil	●	●	●	●	●
Diethanolamine	●	●	●	●	●
Diethylaniline	●	●	●	●	●
Diethyl Carbonate	●	●	●	●	●
Diethyl Sulfate	●	●	●	●	●
Dimethoxybenzidene	●	●	●	●	●
Dimethylaminoazobenzene	●	●	●	●	●
Dimethyl Aniline	●	●	●	●	●
Dimethylbenzidine	●	●	●	●	●
Dimethyl Carbamoyl Chloride	●	●	●	●	●
Dimethil Ether	●	●	●	●	●
Dimethylformamide	●	●	●	●	●
Dimethyl Phthalate	●	●	●	●	●
Dimethyl Sulfate	●	●	●	●	●
Dinitrophenol	●	●	●	●	●
Dinitrotoluene	●	●	●	●	●
Dioxane	●	●	●	●	●

● Suitable ● Depends on the operational conditions ● Not suitable ● No reference

CHEMICAL COMPATIBILITY GUIDE

	AFG-261®	AFG-262®	AFG-263®	AFG-264® AFG-265®	AFG-266®
Diprtenylhydrazine	●	●	●	●	●
Epichlorohydrin	●	●	●	●	●
E85 (85% Ethanol, 15% Gas)	●	●	●	●	●
Epoxybutane	●	●	●	●	●
Ethane	●	●	●	●	●
Ethers	●	●	●	●	●
Ethyl Acetate	●	●	●	●	●
Ethyl Acrylate	●	●	●	●	●
Ethyl Alcohol	●	●	●	●	●
Ethylbenzene	●	●	●	●	●
Ethyl Carbamate	●	●	●	●	●
Ethyl Cellulose	●	●	●	●	●
Ethyl Chloride	●	●	●	●	●
Ethyl Ether	●	●	●	●	●
Ethyl Hexoate	●	●	●	●	●
Ethylene	●	●	●	●	●
Ethylene Bromide	●	●	●	●	●
Ethylene Dibromide	●	●	●	●	●
Ethylene Dichloride	●	●	●	●	●
Ethylene Glycol	●	●	●	●	●
Ethyleneimine	●	●	●	●	●
Ethylene Oxide	●	●	●	●	●
Ethylene Thiourea	●	●	●	●	●
Ethylidine Chloride	●	●	●	●	●
Ferric Chloride	●	●	●	●	●
Ferric Phosphate	●	●	●	●	●
Ferric Sulfate	●	●	●	●	●
Fluorine, Gas	●	●	●	●	●
Fluorine, Liquid	●	●	●	●	●
Fluorine Dioxide	●	●	●	●	●
Formaldehyde	●	●	●	●	●
Formic Acid	●	●	●	●	●
Fuel Oil	●	●	●	●	●
Fuel Oil, Acid	●	●	●	●	●
Gasoline, Refined	●	●	●	●	●
Gelatin	●	●	●	●	●
Glucose	●	●	●	●	●
Glycerine, Glycerol	●	●	●	●	●
Glycol	●	●	●	●	●
Grain Alcohol	●	●	●	●	●
Grease, Petroleum Base	●	●	●	●	●
Green Sulfate Liqoor	●	●	●	●	●
Heptachlor	●	●	●	●	●
Heptane	●	●	●	●	●
Hexachlorobenzerte	●	●	●	●	●
Hexachlorobutadierte	●	●	●	●	●
Hexachlorocyclopentadiene	●	●	●	●	●
Hexachloroethane	●	●	●	●	●
Hexadecane	●	●	●	●	●
Hexamethylene Diisocyanate	●	●	●	●	●
Hexamethylphosphoramide	●	●	●	●	●
Hexane	●	●	●	●	●
Hexorte	●	●	●	●	●
Hydraulic Oil, Mineral	●	●	●	●	●
Phosphate Esters	●	●	●	●	●
Hydrazine	●	●	●	●	●
Hydrobromic Acid	●	●	●	●	●
Hydrochloric Acid	●	●	●	●	●
Hydrochloric Acid, dry	●	●	●	●	●
Hydrochloric Acid 20%	●	●	●	●	●
Hydrocyanic Acid	●	●	●	●	●
Hydrofluoric Acid, Anhydrous	●	●	●	●	●
Hydrofluoric Acid less then 65% Above 70˚C	●	●	●	●	●
Hydrofluoric Acid 65% to Anhydrous Above 70˚C	●	●	●	●	●
Hydrofluoric Acid Up to Anhydrous 70˚C & Below	●	●	●	●	●
Hydrofluorosilicic Acid	●	●	●	●	●
Hydrofloosilicic Acid	●	●	●	●	●
Hydrogen	●	●	●	●	●
Hydrogen Bromide	●	●	●	●	●
Hydrogen Fluoride	●	●	●	●	●
Hydrogen Peroxide, 10%	●	●	●	●	●
Hydrogen Peroxide, 10-90%	●	●	●	●	●
Hydrogen Sulfide, Dry or Wet	●	●	●	●	●
Hydroquinone	●	●	●	●	●
Iodine Pentafluoride	●	●	●	●	●
Iodomethane	●	●	●	●	●
Isobutane	●	●	●	●	●
Isooctane	●	●	●	●	●
Isophorone	●	●	●	●	●
Isopropyl Alcohol	●	●	●	●	●
Jet Fuels	●	●	●	●	●
Kerosene	●	●	●	●	●
Lacquer Solvents	●	●	●	●	●
Lacquers	●	●	●	●	●
Lactic Acid, 70°C and below	●	●	●	●	●
Lactic Acid, Above 70°C	●	●	●	●	●
Lime Saltpeter (Calcium)	●	●	●	●	●
Nitrates)Lindane	●	●	●	●	●
Linseed Oil	●	●	●	●	●
Liquified Petroleum Gas	●	●	●	●	●
Lithium Bromide	●	●	●	●	●
Lithium, Elemental	●	●	●	●	●
Lubricating Oils, Refined	●	●	●	●	●

	AFG-261®	AFG-262®	AFG-263®	AFG-264® AFG-265®	AFG-266®
Lubricating Mineral or Petroleum Types	●	●	●	●	●
Sour	●	●	●	●	●
Lye	●	●	●	●	●
Magnesium Chloride	●	●	●	●	●
Magnesium Hydroxide	●	●	●	●	●
Magnesium Sutfate	●	●	●	●	●
Maleic Acid	●	●	●	●	●
Maleic Anhydride	●	●	●	●	●
Mercuric Chloride	●	●	●	●	●
Mercury	●	●	●	●	●
Methane	●	●	●	●	●
Methand, Methyl Alcohol	●	●	●	●	●
Methoxychlor	●	●	●	●	●
Methylacrylic Acid	●	●	●	●	●
Methyl Alcohol	●	●	●	●	●
Methylaziridine	●	●	●	●	●
Methyl Bromide	●	●	●	●	●
Methyl Chloride	●	●	●	●	●
Methyl Chloroform	●	●	●	●	●
4,4-Methylene-Bis(2-chloroaniline)	●	●	●	●	●
Methylene Chloride	●	●	●	●	●
Methylene Dianiline	●	●	●	●	●
Methylene Diphenyldiisocyanate	●	●	●	●	●
Methyl Ethyl Ketone (MEK)	●	●	●	●	●
Methyl Hydrazine	●	●	●	●	●
Methyl Iodide	●	●	●	●	●
Methyl Isobutyl Ketone (MIBK)	●	●	●	●	●
Methyl Isocyanate	●	●	●	●	●
Methyl Methacrylate	●	●	●	●	●
Methyl Pyrrdidone	●	●	●	●	●
Methyl Tert. Butyl Ether (MTBE)	●	●	●	●	●
Milk	●	●	●	●	●
Mineral Oils	●	●	●	●	●
Molten Alkali Metals	●	●	●	●	●
Monomethylamine	●	●	●	●	●
Muriatic Acid	●	●	●	●	●
Naphtha	●	●	●	●	●
Naphthalene	●	●	●	●	●
Naphthols	●	●	●	●	●
Natural Gas	●	●	●	●	●
Nickel Chloride	●	●	●	●	●
Nickel Sulfate	●	●	●	●	●
Nitric Acid, Less than 30%	●	●	●	●	●
Nitric Acid, Above 30%	●	●	●	●	●
Nitric Acid, Crude	●	●	●	●	●
Nitric Acid, Red Fuming	●	●	●	●	●
Nitrobenzene	●	●	●	●	●
Nitrobiphenyl	●	●	●	●	●
Nitro-Butanol	●	●	●	●	●
Nitrocalcite (Calcium Nitrate)	●	●	●	●	●
Nitrogen	●	●	●	●	●
Nitrogen Tetroxide	●	●	●	●	●
Nitrohydrochloric Acid (Aqua Regia)	●	●	●	●	●
Nitromethane	●	●	●	●	●
2-Nitro-2-Methyl Propanol	●	●	●	●	●
Nitromuriatic Acid (Aqua Regia)	●	●	●	●	●
Nitrophenol	●	●	●	●	●
Nitropropane	●	●	●	●	●
Nitrosodimethylamine	●	●	●	●	●
Nitroso Methylurea	●	●	●	●	●
Nitrosomorpholine	●	●	●	●	●
Norge Niter (Calcium Nitrate)	●	●	●	●	●
Norwegian Saltpeter (Calcium Nitrate)	●	●	●	●	●
Octadecyl Alcohol	●	●	●	●	●
Octane	●	●	●	●	●
Oil, Petrdeum	●	●	●	●	●
Oils, Animal and Vegetable	●	●	●	●	●
Oleic Acid	●	●	●	●	●
Oleum	●	●	●	●	●
Orthodichlorobenzene	●	●	●	●	●
Oxalic Acid	●	●	●	●	●
Oxygen, Gas (BAM Approval)	●	●	●	●	●
Ozone	●	●	●	●	●
Oil, Petroleum	●	●	●	●	●
Oils, Animal and Vegetable	●	●	●	●	●
Oleic Acid	●	●	●	●	●
Oleum	●	●	●	●	●
Orthodichlorobenzene	●	●	●	●	●
Oxalic Acid	●	●	●	●	●
Oxygen, Gas (BAM Approval)	●	●	●	●	●
Ozone	●	●	●	●	●
Palmitic Acid	●	●	●	●	●
Paraffin	●	●	●	●	●
Parathion	●	●	●	●	●
Paraxylene	●	●	●	●	●
Pentachloronitrobenzene	●	●	●	●	●
Pentachlorophenol	●	●	●	●	●
Pentane	●	●	●	●	●
Perchloric Acid	●	●	●	●	●
Perchloroethylene	●	●	●	●	●
Petroleum Oils, Crude	●	●	●	●	●
Petroleum Oils, Refined	●	●	●	●	●
Phenol	●	●	●	●	●

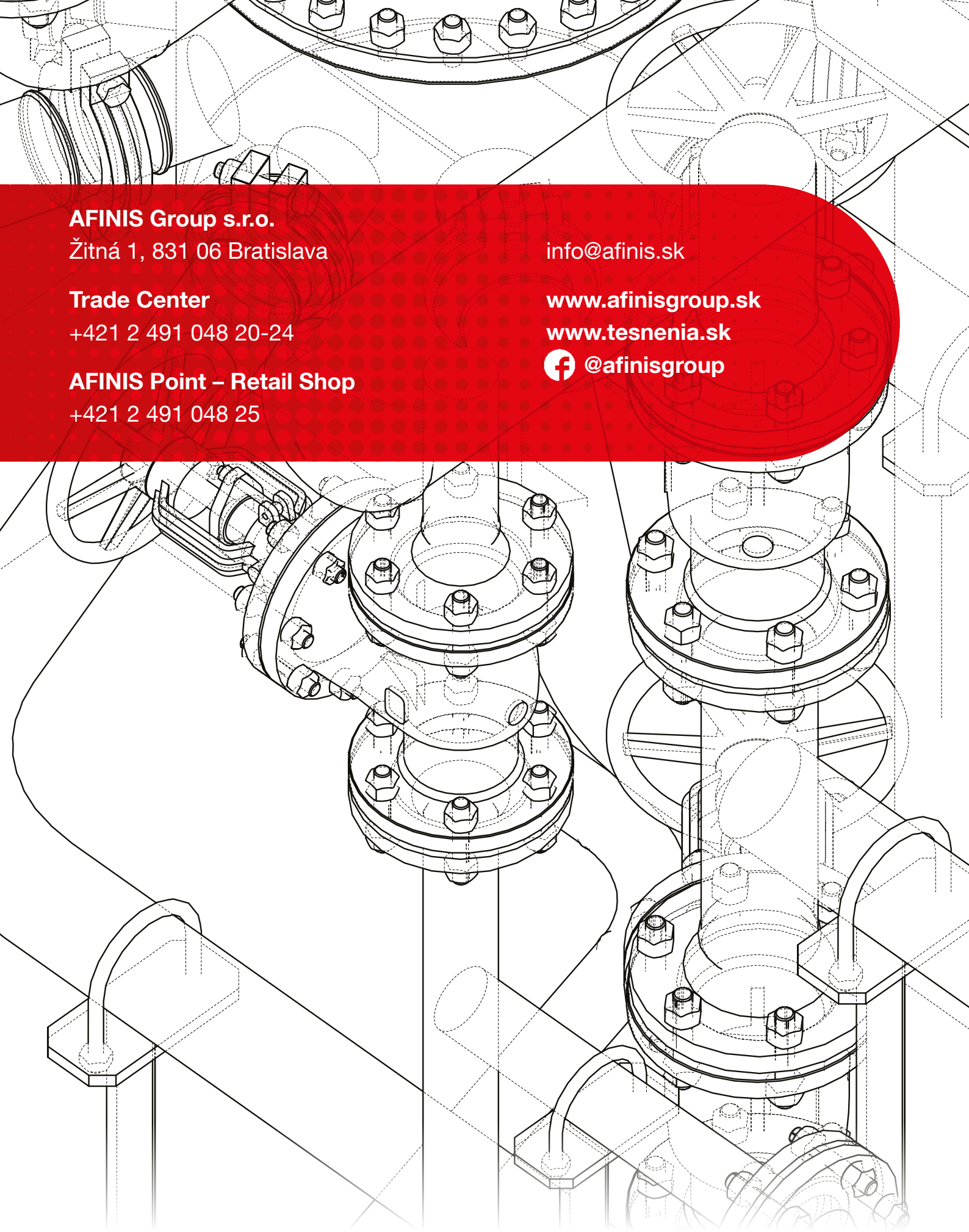
● Suitable ● Depends on the operational conditions ● Not suitable ● No reference

CHEMICAL COMPATIBILITY GUIDE

	AFG-261®	AFG-262®	AFG-263®	AFG-264® AFG-265®	AFG-266®
Phenylenediamine	●	●	●	●	●
Phosgene	●	●	●	●	●
Phosphate Esters	●	●	●	●	●
Phosphine	●	●	●	●	●
Phosphoric Acid, Crude	●	●	●	●	●
Phosphoric Acid, Pure, Less than 45%	●	●	●	●	●
Phosphoric Acid, Pure, Above 45%,	●	●	●	●	●
Phosphoric Acid, Pure, Above 45%, Above 70°C	●	●	●	●	●
Phosphorus, Elemental	●	●	●	●	●
Phosphorus Pentachloride	●	●	●	●	●
Phthalic Acid	●	●	●	●	●
Phthalic Anhydride	●	●	●	●	●
Picric Acid, Molten	●	●	●	●	●
Picric Acid, Water Solution	●	●	●	●	●
Pinene	●	●	●	●	●
Piperidine	●	●	●	●	●
Polyacrylonitrile	●	●	●	●	●
Polychlorinated Biphenyls	●	●	●	●	●
Potash, Potassium Carbonate	●	●	●	●	●
Potassium Acetate	●	●	●	●	●
Potassium Bichromate	●	●	●	●	●
Potassium Chromate, Red	●	●	●	●	●
Fbtassium Cyanide	●	●	●	●	●
Potassium Dichromate	●	●	●	●	●
Potassium, Elemental	●	●	●	●	●
Potassium Hydroxide	●	●	●	●	●
Potassium Iodide	●	●	●	●	●
Potassium Nitrate	●	●	●	●	●
Potassium Pennanganate	●	●	●	●	●
Potassium Su(fate	●	●	●	●	●
Producer Gas	●	●	●	●	●
Propane	●	●	●	●	●
Propane Sultone	●	●	●	●	●
Beta-Propiolactone	●	●	●	●	●
Propionaldehyde	●	●	●	●	●
Propyl Alcohol	●	●	●	●	●
Propyl Nitrate	●	●	●	●	●
Propylene	●	●	●	●	●
Propylene Dichloride	●	●	●	●	●
Propylene Glycol	●	●	●	●	●
Propylene Oxide	●	●	●	●	●
Propylenimine	●	●	●	●	●
Aussie Acid, Hydrocyanic Acid	●	●	●	●	●
Pyridine	●	●	●	●	●
Quinoline	●	●	●	●	●
Quinone	●	●	●	●	●
Refrigerant type 10	●	●	●	●	●
Refrigerant type 11	●	●	●	●	●
Refrigerant type 12	●	●	●	●	●
Refrigerant type 13	●	●	●	●	●
Refrigerant type 13B1	●	●	●	●	●
Refrigerant type 21	●	●	●	●	●
Refrigerant type 22	●	●	●	●	●
Refrigerant type 23	●	●	●	●	●
Refrigerant type 31	●	●	●	●	●
Refrigerant type 32	●	●	●	●	●
Refrigerant type 11 2	●	●	●	●	●
Refrigerant type 113	●	●	●	●	●
Refrigerant type 114	●	●	●	●	●
Refrigerant type 114B2	●	●	●	●	●
Refrigerant type 115	●	●	●	●	●
Refrigerant type 1 23	●	●	●	●	●
Refrigerant type124	●	●	●	●	●
Refrigerant type 1 25	●	●	●	●	●
Refrigerant type 134a	●	●	●	●	●
Refrigerant type 141b	●	●	●	●	●
Refrigerant type 142b	●	●	●	●	●
Refrigerant type 143a	●	●	●	●	●
Refrigerant type 152a	●	●	●	●	●
Refrigerant type 218	●	●	●	●	●
Refrigerant type 290 (Propane)	●	●	●	●	●
Refrigerant type 500	●	●	●	●	●
Refrigerant type 502	●	●	●	●	●
Refrigerant type 503	●	●	●	●	●
Refrigerant type 507	●	●	●	●	●
Refrigerant type 717 (Ammonia)	●	●	●	●	●
Refrigerant type 7 44 (Carbon Dioxide)	●	●	●	●	●
Refrigerant type C316	●	●	●	●	●
Refrigerant type C318	●	●	●	●	●
Refrigerant type HP62	●	●	●	●	●
Refrigerant type HPSO	●	●	●	●	●
Refrigerant type HP81	●	●	●	●	●
Salt Water	●	●	●	●	●
Saltpeter, Potassium Nitrate	●	●	●	●	●
Sewage	●	●	●	●	●
Silicon Oil	●	●	●	●	●
Silver Nitrate	●	●	●	●	●
Soda Ash, Sodium Carbonate	●	●	●	●	●
Sodium Bicarbonate, Baking Soda	●	●	●	●	●
Sodium Bisulfate (Dry)	●	●	●	●	●
Sodium Bisulfite	●	●	●	●	●
Sodium Chlorate	●	●	●	●	●
Sodium Chloride	●	●	●	●	●

	AFG-261®	AFG-262®	AFG-263®	AFG-264® AFG-265®	AFG-266®
Sodium Cyanide	●	●	●	●	●
Sodium, Elemental	●	●	●	●	●
Sodium Hydrogen Sulphite	●	●	●	●	●
Sodium Hydroxide	●	●	●	●	●
Sodium Hypochlorite	●	●	●	●	●
Sodium Metaborate Peroxyhydrate	●	●	●	●	●
Sodium Metaphosphate	●	●	●	●	●
Sodium Nitrate	●	●	●	●	●
Sodium Perborate	●	●	●	●	●
Sodium Peroxide	●	●	●	●	●
Sodium Phosphate, Monobasic	●	●	●	●	●
Sodium Phosphate, Dibasic	●	●	●	●	●
Sodium Phosphate, Tribasic	●	●	●	●	●
Sodium Silicate	●	●	●	●	●
Sodium Sulfate	●	●	●	●	●
Sodium Sulfide	●	●	●	●	●
Sodium Superoxide	●	●	●	●	●
Sodium Thiosulfate	●	●	●	●	●
Soybean Oil	●	●	●	●	●
Stannic Chloride	●	●	●	●	●
Steam, Saturated	●	●	●	●	●
Superheated	●	●	●	●	●
Stearic Acid	●	●	●	●	●
Stoddard Solvent	●	●	●	●	●
Styrene	●	●	●	●	●
Styrene Oxide	●	●	●	●	●
Sugar	●	●	●	●	●
Sulfur Chloride	●	●	●	●	●
Sulfur Dioxide	●	●	●	●	●
Sulfur, Molten	●	●	●	●	●
Sulfur Trioxide, Dry	●	●	●	●	●
Sulfur Trioxide, Wet	●	●	●	●	●
Sulfuric Acid, 10%, 70 °C and below	●	●	●	●	●
Sulfuric Acid, 10%, Above 70 °C	●	●	●	●	●
Sulfuric Acid 0-75%, 260 °C and below	●	●	●	●	●
Sulfuric Acid, 75-98%, 70 °C and below	●	●	●	●	●
Sulfuric Acid, 75-98%, 70 °C to 260 °C	●	●	●	●	●
Sulfuric Acid, Fuming	●	●	●	●	●
Sulfurous Acid	●	●	●	●	●
Tannic Acid	●	●	●	●	●
Tartaric Acid	●	●	●	●	●
TCDB-p-Dioxin	●	●	●	●	●
Tertiary Butyl Amine	●	●	●	●	●
Tetrabromethane	●	●	●	●	●
Tetrachlorethane	●	●	●	●	●
Tetrachloroethylene	●	●	●	●	●
Tetrahydrofuran, THF	●	●	●	●	●
Thionyl Chloride	●	●	●	●	●
Titanium Sulfate	●	●	●	●	●
Titanium Tetrachloride	●	●	●	●	●
Toluene	●	●	●	●	●
Toluenediamine	●	●	●	●	●
Toluenediisocyanate	●	●	●	●	●
Toluene Sulfonic Acid	●	●	●	●	●
Toluidine	●	●	●	●	●
Toxaphine	●	●	●	●	●
Transformer Mineral Oil	●	●	●	●	●
Transmission Fluid A	●	●	●	●	●
Trichloroacetic Acid	●	●	●	●	●
Trichlorobenzene	●	●	●	●	●
Trichloroethane	●	●	●	●	●
Trichloroethylene	●	●	●	●	●
Trichlorophenol	●	●	●	●	●
Tricresylphosphate	●	●	●	●	●
Triethanolamine	●	●	●	●	●
Triethyl Aluminum	●	●	●	●	●
Triethylamine	●	●	●	●	●
Trifluralin	●	●	●	●	●
Trimethylpentane	●	●	●	●	●
Turpentine	●	●	●	●	●
Urea, 70°C and below	●	●	●	●	●
Urea, above 70° C	●	●	●	●	●
Varnish	●	●	●	●	●
Vegetable Oil	●	●	●	●	●
Vinegar	●	●	●	●	●
Vinyl Acetate	●	●	●	●	●
Vinyl Bromide	●	●	●	●	●
Vinyl Chloride	●	●	●	●	●
Vinylidene Chloride	●	●	●	●	●
Vinyl Methacrylate	●	●	●	●	●
Water, Acid Mine, wrth Oxidizing Salt	●	●	●	●	●
Water, Acid Mine, No Oxidizing Salts	●	●	●	●	●
Water, Distilled	●	●	●	●	●
Return Condensate	●	●	●	●	●
Seawater	●	●	●	●	●
Tap Water	●	●	●	●	●
Whiskey and Wines	●	●	●	●	●
Wood Alcohol	●	●	●	●	●
Xylene	●	●	●	●	●
Zinc Chloride	●	●	●	●	●
Zinc Sulfate	●	●	●	●	●

● Suitable ● Depends on the operational conditions ● Not suitable ● No reference



AFINIS Group s.r.o.
Žitná 1, 831 06 Bratislava

Trade Center
+421 2 491 048 20-24

AFINIS Point – Retail Shop
+421 2 491 048 25

info@afinis.sk

www.afinisgroup.sk
www.tesnenia.sk
@afinisgroup

AFINIS® group