PALMFOX
All Sealling Solution

CNAF Sheet
PAF-GREEN 310®
(Aramid Fiberwith NBR)

PAF-GREEN 310 is a sheet gasket constructed out of compressed aramid fibers that are highly resistant to chemical substances and elevated temperatures. Furthermore, Nitrile Butadiene binder in this specific type of gasket provides efficient stability in the condition of being exposed to different oils, fuels, petroleum derivatives, potable water, steam, and gasses.

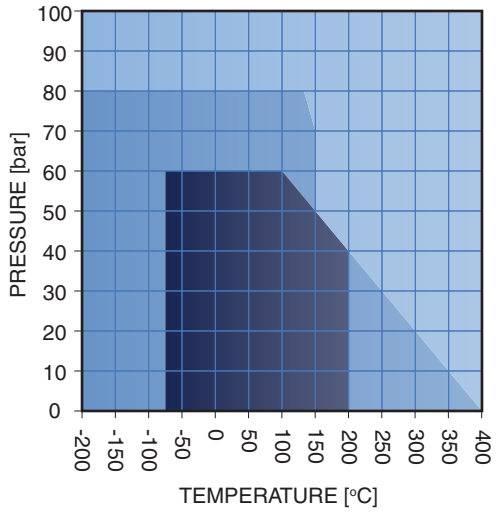
TECHNICAL DATA:

TYPICAL VALUES FOR A THICKNESS OF 2.0 MM				
Compressibility	ASTM F 36 J	-	%	8.5±1
Recovery	ASTM F 36 J	-	%	55
Stress relaxation	DIN 52913	50 MPa, 16 hours at 175˚C 50 MPa, 16 hours at 300˚C	MPa MPa	35 30
Tensile Strength	ASTM F 152	-	MPa (psi)	15 (2200)
Thickness increase after fluid immersion	ASTM F 146 ASTM F 146	Oil IRM 903: 5 hours at 150˚C Fuel B: 5 hours at 23˚C	% %	3 5
Thickness decrease	-	At 23˚C At 300˚C	% %	10 18
Density	-	-	g/cm^3	1.6
Creep Relaxation	F38B	22 hours at 100˚C 22 hours at 200˚C	% %	8 15
Thermal conductivity	-	-	W/mK	0.38
Temperature (Max.)	-	-	˚C (˚F)	+400 (+750)
Temperature (Min.)	-	-	˚C (˚F)	-75 (-100)
Continuous temperature (Max.)	-	-	˚C (˚F)	+210 (+400)
Pressure (Max.)	-	-	bar (psi)	100 (1450)
P × T **0.8 mm (1/32˝)** **1.6 mm (1/16˝)** **3.2 mm (1/8˝)**	 - - -	 - - -	bar×˚C	 12000 12000 8600
Gas leak rate	-	At internal pressure of 580 psi (40 bar) and gasket load equal to 4640psi (32 MPa)	ml/min	0.05

APPLICATIONS:

Water, Oil, Aliphatic hydrocarbons, Gas and mild acids and bases.

P-T DIAGRAM



■ In the darker shaded region (dark blue) the gasket is generally applicable for different chemical substances and is highly able to offer chemical compatibility.

■ In workplaces with the conditions this area, technical assessment of gasket material is recommended.

■ In the light blue region, installation of gasket without technical assessment should not be carried out.

DIMENSIONS

Size (mm):	1000*1500 mm I 1500*1500 mm I 2000*1500 mm I 3000*1500 mm
Thickness (mm):	0.5, 0.8, 1.0, 1.5, 2.0, 3.0, 4.0, 5.0
Tolerances (mm):	Up to 1.0 mm thickness: ±0.1mm Above 1.0 mm thickness: ±10% Length & Width: ±5%
Surface finish:	Color: Green

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CHEMICAL RESISTANCE CHART

PAFGREEN 310		PAFGREEN 310	
Acetaldehyde	?	Brine	✓
Acetamide	✓	Butane	✓
Acetic acid 10%	✓	Butanol (butyl alcohol)	✓
Acetic acid 100% (glacial acetic acid)	✓	Butanone (2) (M.E.K.)	?
Acetic acid ester	?	Butyl acetates	?
Acetone	?	Butyl alcohol	✓
Acetylene	✓	Butylamine	✗
Adipic acid	✓	Butyric acid	✓
Air	✓	Calcium chloride	✓
Aliphatic hydrocarbons	i	Calcium hydroxide	✓
Alcohol (see under specific name)	i	Calcium hypochlorite	✓
Alum	✓	Calcium sulfate	✓
Aluminum acetate	✓	Carbolic acid 100% (phenol)	✗
Aluminum chlorate	✓	Carbon dioxide	✓
Aluminum chloride	✓	Carbon disulfide	✓
Ammonia	✓	Carbon tetrachloride	?
Ammonium carbonate	✓	Castor oil	✓
Ammonium chloride	✓	Chlorine (dry)	✓
Ammonium hydrogenphosphate	✓	Chlorine (wet)	?
Ammonium hydroxide	✓	Chlorine water (circa 0,5%)	✓
Amyl acetate	?	Chloroform	?
Aniline	✗	Chromic acid	?
Anon (Cyclohexanone)	✗	Citric acid	✓
Arcton 12 (Frigen or Freon 12)	✓	Clophen T 64	✓
Arcton 22 (Frigen or Freon 22)	✓	Coagulating baths (up to 10%)	?
Aromatic hydrocarbons	i	Condensation water	✓
Asphalt (tar)	✓	Copper acetate	✓
Barium chloride	✓	Copper sulfate	✓
Benzene	✓	Cresol	?
Benzoic acid	?	Cyclohexanol	✓
Blast furnace gas	✓	Cyclohexanone (see anon)	i
Bleaching liquor (chloride of lime)	✓	Decaline	✓
Boiler feed water and boiler water (alkaline)	✓	Dibenzyl ether	✗
Borax	✓	Dibutyl phthalate	✓
Boric acid	✓	Diesel oil	✓

✓ Suitable ? Depends on operating conditions ✗ Unsuitable i No data or insufficient evidence

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CHEMICAL RESISTANCE CHART

PAFGREEN 310		PAFGREEN 310	
Diethyl ether	✓	Hydrogen	✓
Dimethyl formamide	✗	Hydrogen chloride (dry)	✓
Diphyl (Dowtherm A)	✓	Hydrogen peroxide (up to 6% by weight)	✓
Dye baths (alkaline, neutral, acidic)	✓	Isooctane (2, 2, 4 –trimethylpentan)	✓
Ethane	✓	Isopropyl alcohol	✓
Ethanol (ethyl alcohol)	✓	Kerosene	✓
Ethyl acetate (acetic ethylester)	?	Lactic acid 50%	✓
Ethyl alcohol	✓	Lead acetate (sugar of lead)	✓
Ethyl chloride	?	Lead arsenate	✓
Ethylene	✓	Lime water	✓
Ethylene chloride	?	Linseed oil	✓
Ethylenediamine	✓	Lubricating oil (see mineral oils)	i
Ethylene glycol	✗	Magnesium sulfate	✓
Fatty acids from C 6 upwards (see palmitic,stearic and oelic acids)	✗	Malic acid	✓
Fluorosilicic acid	✓	M.E.K. (2-butanone)	?
Formaldehyde	i	Methane	✓
Formamide	✓	Methyl alcohol (methanol)	✓
Formic acid 10%	✓	Methyl chloride	?
Formic acid 85%	?	Methylene chloride	✗
Freon 12, Frigen 12, Arcton 12	✓	Mineral oil - ASTM Oil No. 1	✓
Freon 22, Frigen 22, Arcton 22	?	Mineral oil - ASTM Oil No. 3	✓
Fuel oil	✓	Monochlormethane	?
Generator gas	✓	Naphtha	✓
Glacial acetic acid	✓	Natural gas	✓
Glycerol	✓	Nitric acid 20%	✗
Heating oil	✓	Nitric acid 40%	✗
Heptane	✓	Nitric acid 96%	✗
Hydraulic oil (mineral)	✓	Nitrobenzene	✗
Hydraulic oil (phosphate ester type)	✓	Nitrogen	✓
Hydraulic oil (glycol based)	✓	Octane	✓
Hydrazine hydrate	✓	Oleic acid	✓
Hydrochloric acid 20%	?	Oleum (fuming sulfuric acid))	✗
Hydrochloric acid 37%	✗	Oxalic acid	?
Hydrofluoric acid 10%	✗	Oxygen (check local regulations for use)	✓
Hydrofluoric acid 40%	✗	Palmitic acid	✓

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CHEMICAL RESISTANCE CHART

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Paraffin (kerosene)	✓	Sodium hydrogensulfite	✓
Pentane	✓	Sodium chloride (Salt)	✓
Perchlorethylene	?	Sodium cyanide	✓
Petrol (fuel)	✓	Sodium hydroxide	?
Petroleum	✓	Sodium silicate (water-glass)	✓
Petroleum ether	✓	Sodium sulfate	✓
Phenol	✗	Sodium sulfide	✓
Phosphoric acid (all concentrations)	✓	Spirit	✓
Phthalic acid	✓	Starch	✓
Potassium acetate	✓	Steam	✓
Potassium carbonate	✓	Stearic acid	✓
Potassium chlorate	✓	Sugar	✓
Potassium chloride	✓	Sulfur dioxide	?
Potassium chromium sulfate	✓	Sulfuric acid 20 %	✗
Potassium cyanide	✓	Sulfuric acid 50 %	✗
Potassium dichromate	✓	Sulfuric acid 96 %	✗
Potassium hydroxide	?	Sulfurous acid	?
Potassium hypochlorite	✓	Tannic acid	✓
Potassium iodide	✓	Tar (asphalt)	✓
Potassium nitrate (salpetre)	✓	Tartaric acid	✓
Potassium permanganate	✓	Tetrachlorethane	?
Propane	✓	Tetralin (1, 2, 3, 4 -tetrahydronaphtalene)	✓
Pyridine	✗	Toluene	✓
Rapeseed oil	✓	Town gas	✓
R134a	✓	Transformer oil	✓
Salicylic acid	✓	Trichlorethylene	?
Salt (rock salt)	✓	Triethanolamine	✓
Sea water	✓	Turpentine	✓
Silicone oil	✓	Urea	✓
Skydrol 500	✗	Vinyl acetate	✓
Soap	✓	Water	✓
Soda (sodium carbonate)	✓	Water-glass	✓
Sodium aluminate	✓	White Spirit	✓
Sodium hydrogencarbonate	✓	Xylene	✓

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