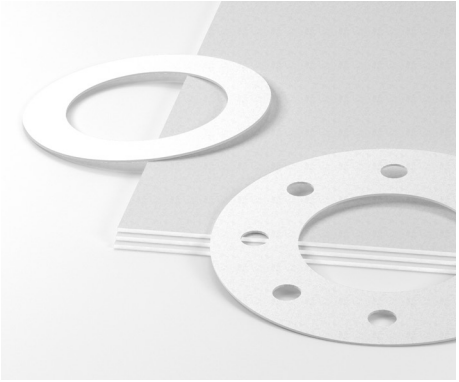
PALMFOX
All Sealing Solution

# PTFE Sheet
## PAFLON-VIRGIN ®
*(100% Pure PTFE)*

**PAFLON VIRGIN** is a polymer-based gasket used in construction design applications to conserve the joints between two substrates. This joint sealant material is constructed out of specially treated 100% pure PTFE. The presence of fluorocarbons in this gasket's composition has made it outstandingly resistant to several chemicals and has led to its superior sealing performance in work conditions with elevated internal pressure. PAFLON VIRGIN is also highly compressible and creeps resistant which makes it an effective sealing system to fill flange defects.



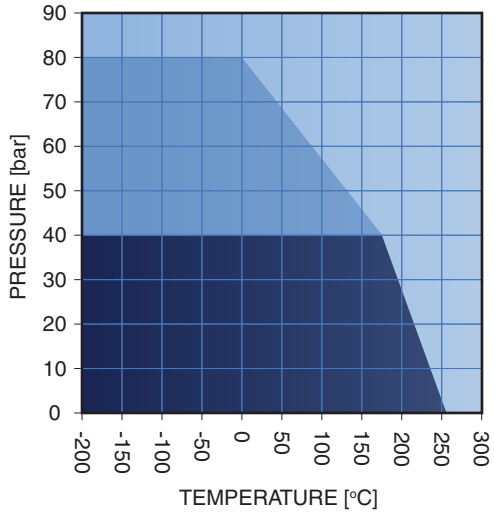
## TECHNICAL DATA:

| TYPICAL VALUES FOR A THICKNESS OF 2.5 MM | | | | |
|---|---|---|---|---|
| **Compressibility** | ASTM F 36 L | - | % | 80 |
| **Creep relaxation** | ASTM F 38 | At 3000 psi | % | 45 |
| **Gas leakage** | ASTM F 37 B | 30 psi Nitrogen, 3000 psi load | Ml/hour | 4.8 |
| **Density** | - | - | g/cm$^3$ | 2.1 |
| **Temperature (Max.)** | - | - | ˚C (˚F) | +260 (+500) |
| **Temperature (Min.)** | - | - | ˚C (˚F) | -200 (-320) |
| **Pressure (Max.)** | - | - | bar (psi) | 100 (2030) |

## APPLICATIONS:

Fragile glass, Ceramic, Plastic Flanges, Pharmaceutical applications, PVC and Nuclear plants, Lined pipe joints, Gaseous material.

## 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*1000 mm I 1500*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<br>Above 1.0 mm thickness: ±10%<br>Length & Width: ±5% |
| **Surface finish:** | Color: White |

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## CHEMICAL RESISTANCE CHART

| PAFLON-VIRGIN | | PAFLON-VIRGIN | |
|---|---|---|---|
| Acetamide | ✓ | Black liquor | ✓ |
| Acetic acid, 10% | ✓ | Borax | ✓ |
| Acetic acid, 100% (Glacial) | ✓ | Boric acid | ✓ |
| Acetone | ✓ | Butadiene (gas) | ✓ |
| Acetonitrile | ✓ | Butane (gas) | ✓ |
| Acetylene (gas) | ✓ | Butyl alcohol (Butanol) | ✓ |
| Acid chlorides | ✓ | Butyric acid | ✓ |
| Acrylic acid | ✓ | Calcium chloride | ✓ |
| Acrylonitrile | ✓ | Calcium hydroxide | ✓ |
| Adipic acid | ✓ | Carbon dioxide (gas) | ✓ |
| Air (gas) | ✓ | Carbon monoxide (gas) | ✓ |
| Alcohols | ✓ | Cellosolve | ✓ |
| Aldehydes | ✓ | Chlorine (gas) | ✓ |
| Alum | ✓ | Chlorine (in water) | ✓ |
| Aluminium acetate | ✓ | Chlorobenzene | ✓ |
| Aluminium chlorate | ✓ | Chloroform | ✓ |
| Aluminium chloride | ✓ | Chloroprene | ✓ |
| Aluminium sulfate | ✓ | Chlorosilanes | ✓ |
| Amines | ✓ | Chromic acid | ✓ |
| Ammonia (gas) | ✓ | Citric acid | ✓ |
| Ammonium bicarbonate | ✓ | Copper acetate | ✓ |
| Ammonium chloride | ✓ | Copper sulfate | ✓ |
| Ammonium hydroxide | ✓ | Creosote | ✓ |
| Amyl acetate | ✓ | Cresols (Cresylic acid) | ✓ |
| Anhydrides | ✓ | Cyclohexane | ✓ |
| Aniline | ✓ | Cyclohexanol | ✓ |
| Anisole | ✓ | Cyclohexanone | ✓ |
| Argon (gas) | ✓ | Decalin | ✓ |
| Asphalt | ✓ | Dextrin | ✓ |
| Barium chloride | ✓ | Dibenzyl ether | ✓ |
| Benzaldehyde | ✓ | Dibutyl phthalate | ✓ |
| Benzene | ✓ | Dimethylacetamide (DMA) | ✓ |
| Benzoic acid | ✓ | Dimethylformamide (DMF) | ✓ |
| Bio-diesel | ✓ | Dioxane | ✓ |
| Bio-ethanol | ✓ | Diphyl (Dowtherm A) | ✓ |

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

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## CHEMICAL RESISTANCE CHART

| PAFLON-SILICA | | PAFLON-SILICA | |
|---|---|---|---|
| Esters | ✓ | Iron sulfate | ✓ |
| Ethane (gas) | ✓ | Isobutane (gas) | ✓ |
| Ethers | ✓ | Isooctane | ✓ |
| Ethyl acetate | ✓ | Isoprene | ✓ |
| Ethyl alcohol (Ethanol) | ✓ | Isopropyl alcohol (Isopropanol) | ✓ |
| Ethyl cellulose | ✓ | Kerosene | ✓ |
| Ethyl chloride (gas) | ✓ | Ketones | ✓ |
| Ethylene (gas) | ✓ | Lactic acid | ✓ |
| Ethylene glycol | ✓ | Lead acetate | ✓ |
| Formaldehyde (Formalin) | ✓ | Lead arsenate | ✓ |
| Formamide | ✓ | Magnesium sulfate | ✓ |
| Formic acid, 10% | ✓ | Maleic acid | ✓ |
| Formic acid, 85% | ✓ | Malic acid | ✓ |
| Formic acid, 100% | ✓ | Methane (gas) | ✓ |
| Freon-12 (R-12) | ✓ | Methyl alcohol (Methanol) | ✓ |
| Freon-134a (R-134a) | ✓ | Methyl chloride (gas) | ✓ |
| Freon-22 (R-22) | ✓ | Methylene dichloride | ✓ |
| Fruit juices | ✓ | Methyl ethyl ketone (MEK) | ✓ |
| Fuel oil | ✓ | N-Methyl-pyrrolidone (NMP) | ✓ |
| Gasoline | ✓ | Milk | ✓ |
| Gelatin | ✓ | Mineral oil (ASTM no.1) | ✓ |
| Glycerine (Glycerol) | ✓ | Motor oil | ✓ |
| Glycols | ✓ | Naphtha | ✓ |
| Helium (gas) | ✓ | Nitric acid, 10% | ✓ |
| Heptane | ✓ | Nitric acid, 65% | ✓ |
| Hydraulic oil (Glycol based) | ✓ | Nitrobenzene | ✓ |
| Hydraulic oil (Mineral type) | ✓ | Nitrogen (gas) | ✓ |
| Hydraulic oil (Phosphate ester based) | ✓ | Nitrous gases (NOx) | ✓ |
| Hydrazine | ✓ | Octane | ✓ |
| Hydrocarbons | ✓ | Oils (Essential) | ✓ |
| Hydrochloric acid, 10% | ✓ | Oils (Vegetable) | ✓ |
| Hydrochloric acid, 37% | ✓ | Oleic acid | ✓ |
| Hydrofluoric acid, 10% | ✓ | Oleum (Sulfuric acid, fuming) | ✓ |
| Hydrofluoric acid, 48% | ✓ | Oxalic acid | ✓ |
| Hydrogen (gas) | ✓ | Oxygen (gas) | ✓ |

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## CHEMICAL RESISTANCE CHART

| PAFLON-SILICA | | PAFLON-SILICA | |
|---|---|---|---|
| Palmitic acid | ✓ | Sodium hydroxide | ? |
| Paraffin oil | ✓ | Sodium hypochlorite (Bleach) | ✓ |
| Pentane | ✓ | Sodium silicate (Water glass) | ✓ |
| Perchloroethylene | ✓ | Sodium sulfate | ✓ |
| Petroleum (Crude oil) | ✓ | Sodium sulfide | ✓ |
| Phenol (Carbolic acid) | ✓ | Starch | ✓ |
| Phosphoric acid, 40% | ✓ | Steam | ✓ |
| Phosphoric acid, 85% | ✓ | Stearic acid | ✓ |
| Phthalic acid | ✓ | Styrene | ✓ |
| Potassium acetate | ✓ | Sugars | ✓ |
| Potassium bicarbonate | ✓ | Sulfur | ✓ |
| Potassium carbonate | ✓ | Sulfur dioxide (gas) | ✓ |
| Potassium chloride | ✓ | Sulfuric acid, 20% | ✓ |
| Potassium cyanide | ✓ | Sulfuric acid, 98% | ✓ |
| Potassium dichromate | ✓ | Sulfuryl chloride | ✓ |
| Potassium hydroxide | ? | Tar | ✓ |
| Potassium iodide | ✓ | Tartaric acid | ✓ |
| Potassium nitrate | ✓ | Tetrahydrofuran (THF) | ✓ |
| Potassium permanganate | ✓ | Thionyl chloride | ✓ |
| Propane (gas) | ✓ | Titanium tetrachloride | ✓ |
| Propylene (gas) | ✓ | Toluene | ✓ |
| Pyridine | ✓ | 2,4-Toluenediisocyanate | ✓ |
| Salicylic acid | ✓ | Transformer oil (Mineral type) | ✓ |
| Seawater/brine | ✓ | Trichloroethylene | ✓ |
| Silicones (oil/grease) | ✓ | Vinegar | ✓ |
| Soaps | ✓ | Vinyl chloride (gas) | ✓ |
| Sodium aluminate | ✓ | Vinylidene chloride | ✓ |
| Sodium bicarbonate | ✓ | Water | ✓ |
| Sodium bisulfite | ✓ | White spirits | ✓ |
| Sodium carbonate | ✓ | Xylenes | ✓ |
| Sodium chloride | ✓ | Xylenol | ✓ |
| Sodium cyanide | ✓ | Zinc sulfate | ✓ |

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