

PTFE PRODUCTS – UNIFLON

UNIFLON 50



UNIFLON 51



UNIFLON 53



Colour	blue	pink	white
Description and application	<p>Uniflon 50 is a superior performance biaxially orientated PTFE sheet sealing material with more conformable properties, ideally suited to irregular flanges. Uniflon 50 is specifically designed for use in low bolt loaded flanges. Typical flanges include glass lined, ceramic or plastic coated or uneven and badly distorted flanges. Uniflon 50 is suitable for chemical media across pH (0– 14) range, with exception of melting alkali metals, fluorine gas, hydrogen fluoride. The sheets are excellent for handling and cutting.</p>	<p>Uniflon 51 is a superior performance biaxially orientated PTFE sheet sealing material with silica filler. A general purpose grade for sealing applications across the whole pH (0–14) range. Uniflon 51 is particularly suitable for use with strong acids (except hydrofluoric acid) and alkalis. Other applications include solvents, fuels, water, steam and chlorine compounds. The sheets are excellent for handling and cutting.</p>	<p>Uniflon 53 is a high performance biaxially orientated PTFE sheet material with barium sulphate filler. A general purpose grade for sealing applications across the whole pH (0–14) range. It is suitable for use with hydrofluoric acid, but not pure liquid hydrogen fluoride. Uniflon 53 can also be used with alkalis, solvents, fuels, water, steam and chlorine. The sheets are excellent for handling and cutting.</p>

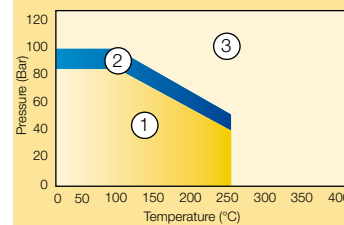
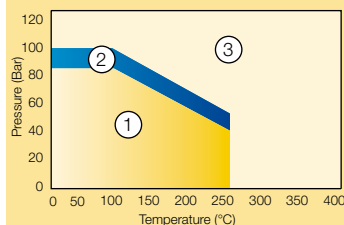
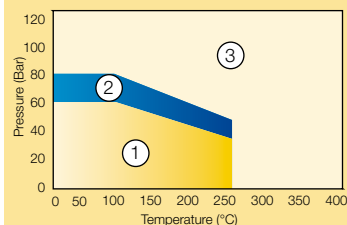
Technical properties

Marking according to	DIN 28 091-3	TF-G-O	TF-M-O	TF-Z-O
Certificate		FDA	FDA, BAM	FDA, BAM
Sheet size	m	1,0 x 1,0 1,5 x 1,5 2,0 x 2,0	1,0 x 1,0 1,5 x 1,5 2,0 x 2,0	1,0 x 1,0 1,5 x 1,5 2,0 x 2,0
Thickness	mm	0,75 1,0 1,5 2,0 2,5 3,0	0,75 1,0 1,5 2,0 2,5 3,0	0,75 1,0 1,5 2,0 2,5 3,0
Max. temperature *	°C	from -200 to +260		
Max. pressure *	bar	85		
Density	g/cm ³	1,4		
Compressibility (ASTM F 36)	%	40		
Recovery (ASTM F 36)	%	30		
Residual stress (BS 7531, 175° C)	MPa	25		
Tensile strength (ASTM F 152)	MPa	11		
Creep relaxation (ASTM F 38)	%	35		
Gas permeability (DIN 3535)	cm ³ /min	< 0,02		
Liquid leakage		0,23		
ASTM F 37	mL/hod	0,21		

Legend:

* max. values can not be used simultaneously

- 1 - suitable subject to chemical compactability
- 2 - suitable in some cases but check your application requirements with the technical team
- 3 - this area technical consultation is mandatory



Chemical resistance table

	PTFE				PTFE				PTFE		
	Uniflon 50	Uniflon 51	Uniflon 53		Uniflon 50	Uniflon 51	Uniflon 53		Uniflon 50	Uniflon 51	Uniflon 53
Acetaldehyde	A	A	A	Dibutyl Phthalate	A	A	A	Palmitic Acid	A	A	A
Acetamide	A	A	A	Diesel Oil	A	A	A	Paraffin	A	A	A
Acetic Acid	A	A	A	Diethanolamine	A	A	A	Pentane	A	A	A
Acetic Acid Glacial	A	A	A	Diethylamine	A	A	A	Perchloroethylene	A	A	A
Acetic Anhydride	A	A	A	Di-iso Butyl Ketone	A	A	A	Perchloric Acid	A	A	A
Acetone	A	A	A	Dimethyl Formamide	A	A	A	Petrol	A	A	A
Acetonitrile	A	A	A	Dimethylamine	A	A	A	Petroleum	A	A	A
Acetyl Chloride	A	A	A	Dioxane	A	A	A	Petroleum Gas Liquid	A	A	A
Acetylene	A	A	A	Ethane	A	A	A	Phenol	A	A	A
Acrylic Acid	A	A	A	Ethanol	A	A	A	Phosgene	A	A	A
Acrylonitrile	A	A	A	Ethyl Acetate	A	A	A	Phosphoric Acid < 45%	A	A	A
Adipic Acid	A	A	A	Ethyl Acrylate	A	A	A	Phosphoric Acid > 45%	B	B	A
Air	A	A	A	Ethyl Alcohol	A	A	A	Phthalic Acid	A	A	A
Allyl Chloride	A	A	A	Ethyl Chloride	A	A	A	Potable Water	A	A	A
Alum	A	A	A	Ethyl Chloride Dry	A	A	A	Potassium Acetate	A	A	A
Aluminium Acetate	A	A	A	Ethyl Ether	A	A	A	Potassium Carbonate	A	A	A
Aluminium Chloride	A	A	A	Ethylbenzene	A	A	A	Potassium Chlorate	A	A	A
Aluminium Hydroxide (Solid)	A	A	A	Ethylene	A	A	A	Potassium Chloride	A	A	A
Aluminium Sulphate	A	A	A	Ethylene Chloride	A	A	A	Potassium Cyanide	A	A	A
Ammonia Gas	A	A	A	Ethylene Glycol	A	A	A	Potassium Dichromate < 20%	A	A	A
Ammonium Carbonate	A	A	A	Fluorine Dioxide	C	C	C	Potassium Hydroxide < 50%	C	C	A
Ammonium Chloride	A	A	A	Fluorine Gas	C	C	C	Potassium Hypochlorite	A	A	A
Ammonium Hydroxide	A	A	A	Fluorine Liquid	C	C	C	Potassium Nitrate	A	A	A
Ammonium Sulphate	A	A	A	Formaldehyde	A	A	A	Propane	A	A	A
Amyl Acetate	A	A	A	Formamide	A	A	A	Pyridine	A	A	A
Amyl Alcohol	A	A	A	Formic Acid 85%	A	A	A	Rape Seed Oil	A	A	A
Aniline	A	A	A	Fuel Oil	A	A	A	Refrigerant	A	A	A
Aqua Regia	A	A	A	Gas LPG	A	A	A	Salicylic Acid	A	A	A
Asphalt	A	A	A	Gas Oil	A	A	A	Sea Water	A	A	A
Aviation Fuel	A	A	A	Gasoline	A	A	A	Silicone Oil	A	A	A
Barium Chloride	A	A	A	Generator Gas	A	A	A	Silver Nitrate	A	A	A
Benzaldehyde	A	A	A	Glucose	A	A	A	Soap	A	A	A
Benzene	A	A	A	Glycerine	A	A	A	Sodium Aluminate	A	A	A
Benzoic Acid	A	A	A	Glycol	A	A	A	Sodium Bicarbonate	A	A	A
Benzonitrile	A	A	A	Heating Oil	A	A	A	Sodium Bisulphite	A	A	A
Benzyl Alcohol	A	A	A	Heptane	A	A	A	Sodium Carbonate	A	A	A
Benzyl Chloride	A	A	A	Hexane	A	A	A	Sodium Chloride	A	A	A
Blast Furnace Gas	A	A	A	Hydraulic Oil	A	A	A	Sodium Cyanide	A	A	A
Bleach solution	A	A	A	Hydraulic Oil Mineral	A	A	A	Sodium Hydroxide < 50%	B	C	A
Boiler Feed Water	A	A	A	Hydrochloric Acid 37%	A	A	A	Sodium Silicate	A	A	A
Borax	A	A	A	Hydrofluoric Acid < 65%	C	C	A	Sodium Sulphate	A	A	A
Boric Acid	A	A	A	Hydrofluoric Acid > 65%	C	C	B	Sodium Sulphide	A	A	A
Brine	A	A	A	Hydrofluosillicic Acid	C	C	B	Spirits Methylated	A	A	A
Bromine	A	A	A	Hydrogen	A	A	A	Starch	A	A	A
Butadiene	A	A	A	Hydrogen Chloride	A	A	A	Steam	A	A	A
Butane	A	A	A	Hydrogen Chloride Dry	A	A	A	Steam High Pressure	B	B	B
Butanol	A	A	A	Hydrogen Fluoride	C	C	C	Steam Low Pressure	A	A	A
Butyl Acetate	A	A	A	Hydrogen Peroxide 6%	A	A	A	Stearic Acid	A	A	A
Butyl Alcohol	A	A	A	Hydrogen Sulphide	A	A	A	Styrene	A	A	A
Butyl Methacrylate	A	A	A	Iso-Octane	A	A	A	Sugar	A	A	A
Butylamine	A	A	A	Isopropyl Acetate	A	A	A	Sulphur	A	A	A
Butyric Acid	A	A	A	Isopropyl Alcohol	A	A	A	Sulphur Dioxide Dry	A	A	A
Calcium Chloride	A	A	A	Isopropyl Ether	A	A	A	Sulphur Trioxide	A	A	A
Calcium Hydroxide	A	A	A	Kerosene	A	A	A	Sulphuric Acid (Fuming)	A	A	C
Calcium Hypochlorite	A	A	A	Lactic Acid	A	A	A	Sulphuric Acid 96%	A	A	A
Calcium Sulphate	A	A	A	Linseed Oil	A	A	A	Sulphurous Acid	A	A	A
Carbolic Acid	A	A	A	Lubricating Oil	A	A	A	Tannic Acid	A	A	A
Carbon Dioxide	A	A	A	Machine Oil	A	A	A	Tar	A	A	A
Carbon Disulphide	A	A	A	Magnesium Sulphate	A	A	A	Tartaric Acid	A	A	A
Carbon Monoxide	A	A	A	Maleic Acid	A	A	A	Tetrachlorethane	A	A	A
Carbon Tetrachloride	A	A	A	Maleic Anhydride	A	A	A	Tetrachlorethylene	A	A	A
Castor Oil	A	A	A	Methane	A	A	A	Thermal Oil	A	A	A
Caustic Soda < 25%	B	C	A	Methanol	A	A	A	Toulene	A	A	A
Chloroacetic Acid	A	A	A	Methyl Alcohol	A	A	A	Transformer Oil	A	A	A
Chlorine Dioxide	A	A	A	Methyl Chloride	A	A	A	Transmission Oil	A	A	A
Chlorine Dry	A	A	A	Methyl Ethyl Ketone	A	A	A	Trichlorethylene	A	A	A
Chlorine Liquid	A	A	A	Methyl Methacrylate	A	A	A	Turpentine	A	A	A
Chlorine Wet	A	A	A	Methylene Chloride	A	A	A	Vegetable Oil	A	A	A
Chlormethane	A	A	A	Mineral Oil	A	A	A	Vinyl Bromide	A	A	A
Chlorobenzene	A	A	A	Motor Oil	A	A	A	Vinyl Acetate	A	A	A
Chloroform	A	A	A	Naphta	A	A	A	Vinyl Chloride	A	A	A
Chlorotrifluoride	C	C	C	Naphtalene	A	A	A	Water	A	A	A
Chromic Acid	A	A	A	Natural Gas	A	A	A	White Spirit	A	A	A
Citric Acid	A	A	A	Nickel Chloride	A	A	A	Xylene	A	A	A
Condensation Water	A	A	A	Nickel Sulphate	A	A	A	Zinc Chloride	A	A	A
Cooper Acetate	A	A	A	Nitric Acid	A	A	A	Zinc Sulphate	A	A	A
Cooper Sulphate	A	A	A	Nitric Acid Red (Fuming)	A	A	A				
Creosote	A	A	A	Nitrobenzene	A	A	A				
Cresol	A	A	A	Nitrogen	A	A	A				
Cyclohexane	A	A	A	Octane	A	A	A				
Cyclohexanol	A	A	A	Oil Crude	A	A	A				
Cyklohexanone	A	A	A	Oxalic Acid	A	A	A				
Dibenzyl Ether	A	A	A	Oxygen	C	A	A				

A - suitable for application
B - suitability depends on operating conditions
C - not suitable

If another medium is applied please contact our technical department

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