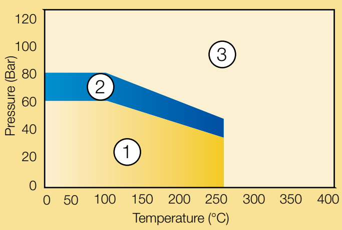
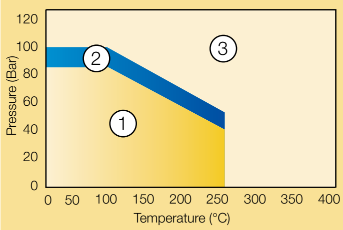
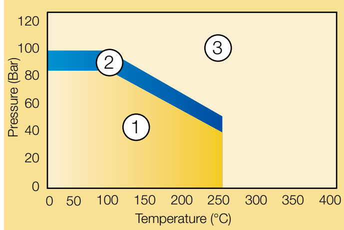
PTFE PRODUCTS – UNIFLON

		UNIFLON 50	UNIFLON 51	UNIFLON 53
				
Colour		blue	pink	white
Description and application		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 loated flanges. Typical flanges include glass lined, ceramic or plastic coated or uneven and badly distored flanges. Uniflon 50 is suitable for chemical media across pH (0– 14) range, with exception of melting alcali metals, fluorine gas, hydrogen fluoride. The sheets are excellent for handling and cutting.	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 particulary 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.	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.
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	from -200 to +260	from -200 to +260
Max. pressure *	bar	85	85	85
Density	g/cm³	1,4	2,2	3,0
Compressibility (ASTM F 36)	%	40	7	5
Recovery (ASTM F 36)	%	30	40	40
Residual stress (BS 7531, 175° C)	MPa	25	32	30
Tensile strenght (ASTM F 152)	MPa	11	15	14
Creep relaxation (ASTM F 38)	%	35	23	21
Gas pemeability (DIN 3535)	cm³/min	< 0,02	< 0,01	< 0,01
Liquid leakage ASTM F 37	mL/hod	0,23	0,21	0,22







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		
	Uniflon 50	Uniflon 51	Uniflon 53
Acetaldehyde	A	A	A
Acetamide	A	A	A
Acetic Acid	A	A	A
Acetic Acid Glacial	A	A	A
Acetic Anhydride	A	A	A
Acetone	A	A	A
Acetonitrile	A	A	A
Acetyl Chloride	A	A	A
Acetylene	A	A	A
Acrylic Acid	A	A	A
Acrylonitrile	A	A	A
Adipic Acid	A	A	A
Air	A	A	A
Allyl Chloride	A	A	A
Alum	A	A	A
Aluminium Acetate	A	A	A
Aluminium Chloride	A	A	A
Aluminium Hydroxide (Solid)	A	A	A
Aluminium Sulphate	A	A	A
Ammonia Gas	A	A	A
Ammonium Carbonate	A	A	A
Ammonium Chloride	A	A	A
Ammonium Hydroxide	A	A	A
Ammonium Sulphate	A	A	A
Amyl Acetate	A	A	A
Amyl Alcohol	A	A	A
Aniline	A	A	A
Aqua Regia	A	A	A
Asphalt	A	A	A
Aviation Fuel	A	A	A
Barium Chloride	A	A	A
Benzaldehyde	A	A	A
Benzene	A	A	A
Benzoic Acid	A	A	A
Benzonitrile	A	A	A
Benzyl Alcohol	A	A	A
Benzyl Chloride	A	A	A
Blast Furnace Gas	A	A	A
Bleach solution	A	A	A
Boiler Feed Water	A	A	A
Borax	A	A	A
Boric Acid	A	A	A
Brine	A	A	A
Bromine	A	A	A
Butadiene	A	A	A
Butane	A	A	A
Butanol	A	A	A
Butyl Acetate	A	A	A
Butyl Alcohol	A	A	A
Butyl Methacrylate	A	A	A
Butylamine	A	A	A
Butyric Acid	A	A	A
Calcium Chloride	A	A	A
Calcium Hydroxide	A	A	A
Calcium Hypochlorite	A	A	A
Calcium Sulphate	A	A	A
Carbolic Acid	A	A	A
Carbon Dioxide	A	A	A
Carbon Disulphide	A	A	A
Carbon Monoxide	A	A	A
Carbon Tetrachloride	A	A	A
Castor Oil	A	A	A
Caustic Soda < 25%	B	C	A
Chloracetic Acid	A	A	A
Chlorine Dioxide	A	A	A
Chlorine Dry	A	A	A
Chlorine Liquid	A	A	A
Chlorine Wet	A	A	A
Chlormethane	A	A	A
Chlorobenzene	A	A	A
Chloroform	A	A	A
Chlorotrifluoride	C	C	C
Chromic Acid	A	A	A
Citric Acid	A	A	A
Condensation Water	A	A	A
Cooper Acetate	A	A	A
Cooper Sulphate	A	A	A
Creosote	A	A	A
Cresol	A	A	A
Cyclohexane	A	A	A
Cyclohexanol	A	A	A
Cyklohexanone	A	A	A
Dibenzyl Ether	A	A	A

	PTFE		
	Uniflon 50	Uniflon 51	Uniflon 53
Dibutyl Phtalate	A	A	A
Diesel Oil	A	A	A
Diethanolamine	A	A	A
Diethylamine	A	A	A
Di-iso Butyl Ketone	A	A	A
Dimethyl Formamide	A	A	A
Dimethylamine	A	A	A
Dioxane	A	A	A
Ethane	A	A	A
Ethanol	A	A	A
Ethyl Acetate	A	A	A
Ethyl Acrylate	A	A	A
Ethyl Alcohol	A	A	A
Ethyl Chloride	A	A	A
Ethyl Chloride Dry	A	A	A
Ethyl Ether	A	A	A
Ethylbenzene	A	A	A
Ethylene	A	A	A
Ethylene Chloride	A	A	A
Ethylene Glycol	A	A	A
Fluorine Dioxide	C	C	C
Fluorine Gas	C	C	C
Fluorine Liquid	C	C	C
Formaldehyde	A	A	A
Formamide	A	A	A
Formic Acid 85%	A	A	A
Fuel Oil	A	A	A
Gas LPG	A	A	A
Gas Oil	A	A	A
Gasoline	A	A	A
Generator Gas	A	A	A
Glucose	A	A	A
Glycerine	A	A	A
Glycol	A	A	A
Heating Oil	A	A	A
Heptane	A	A	A
Hexane	A	A	A
Hydraulic Oil	A	A	A
Hydraulic Oil Mineral	A	A	A
Hydrochloric Acid 37%	A	A	A
Hydrofluoric Acid < 65%	C	C	A
Hydrofluoric Acid > 65%	C	C	B
Hydrofluosillicic Acid	C	C	B
Hydrogen	A	A	A
Hydrogen Chloride	A	A	A
Hydrogen Chloride Dry	A	A	A
Hydrogen Fluoride	C	C	C
Hydrogen Peroxide 6%	A	A	A
Hydrogen Sulphide	A	A	A
Iso-Octane	A	A	A
Isopropyl Acetate	A	A	A
Isopropyl Alcohol	A	A	A
Isopropyl Ether	A	A	A
Kerosene	A	A	A
Lactic Acid	A	A	A
Linseed Oil	A	A	A
Lubricating Oil	A	A	A
Machine Oil	A	A	A
Magnesium Sulphate	A	A	A
Maleic Acid	A	A	A
Maleic Anhydride	A	A	A
Methane	A	A	A
Methanol	A	A	A
Methyl Alcohol	A	A	A
Methyl Chloride	A	A	A
Methyl Ethyl Ketone	A	A	A
Methyl Methacrylate	A	A	A
Methylene Chloride	A	A	A
Mineral Oil	A	A	A
Motor Oil	A	A	A
Naphta	A	A	A
Naphtalene	A	A	A
Natural Gas	A	A	A
Nickel Chloride	A	A	A
Nickel Sulphate	A	A	A
Nitric Acid	A	A	A
Nitric Acid Red (Fuming)	A	A	A
Nitrobenzene	A	A	A
Nitrogen	A	A	A
Octane	A	A	A
Oil Crude	A	A	A
Oxalic Acid	A	A	A
Oxygen	C	A	A

	PTFE		
	Uniflon 50	Uniflon 51	Uniflon 53
Palmitic Acid	A	A	A
Paraffin	A	A	A
Pentane	A	A	A
Perchlorethylene	A	A	A
Perchloric Acid	A	A	A
Petrol	A	A	A
Petroleum	A	A	A
Petroleum Gas Liquid	A	A	A
Phenol	A	A	A
Phosgene	A	A	A
Phosphoric Acid < 45%	A	A	A
Phosphoric Acid > 45%	B	B	A
Phtalic Acid	A	A	A
Potable Water	A	A	A
Potassium Acetate	A	A	A
Potassium Carbonate	A	A	A
Potassium Chlorate	A	A	A
Potassium Chloride	A	A	A
Potassium Cyanide	A	A	A
Potassium Dichromate < 20%	A	A	A
Potassium Hydroxide < 50%	C	C	A
Potassium Hypochlorite	A	A	A
Potassium Nitrate	A	A	A
Propane	A	A	A
Pyridine	A	A	A
Rape Seed Oil	A	A	A
Refrigerant	A	A	A
Salicylic Acid	A	A	A
Sea Water	A	A	A
Silicone Oil	A	A	A
Silver Nitrate	A	A	A
Soap	A	A	A
Sodium Aluminate	A	A	A
Sodium Bicarbonate	A	A	A
Sodium Bisulphite	A	A	A
Sodium Carbonate	A	A	A
Sodium Chloride	A	A	A
Sodium Cyanide	A	A	A
Sodium Hydroxide < 50%	B	C	A
Sodium Silicate	A	A	A
Sodium Sulphate	A	A	A
Sodium Sulphide	A	A	A
Spirits Methylated	A	A	A
Starch	A	A	A
Steam	A	A	A
Steam High Pressure	B	B	B
Steam Low Pressure	A	A	A
Stearic Acid	A	A	A
Styrene	A	A	A
Sugar	A	A	A
Sulphur	A	A	A
Sulphur Dioxide Dry	A	A	A
Sulphur Trioxide	A	A	A
Sulphuric Acid (Fuming)	A	A	C
Sulphuric Acid 96%	A	A	A
Sulphurous Acid	A	A	A
Tannic Acid	A	A	A
Tar	A	A	A
Tartaric Acid	A	A	A
Tetrachlorethane	A	A	A
Tetrachlorethylene	A	A	A
Thermal Oil	A	A	A
Toulene	A	A	A
Transformer Oil	A	A	A
Transmission Oil	A	A	A
Trichlorethylene	A	A	A
Turpentine	A	A	A
Vegetable Oil	A	A	A
Vinil Bromide	A	A	A
Vinyl Acetate	A	A	A
Vinyl Chloride	A	A	A
Water	A	A	A
White Spirit	A	A	A
Xylene	A	A	A
Zinc Chloride	A	A	A
Zinc Sulphate	A	A	A

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

If another medium is applied plesase contact our technical department

Contact

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