



Reduced Installation Times

As VIPSealChem's chemical resistant properties lie in the FKM synthetic rubber that is used to manufacture the seal, there is no need for the use of a fluoropolymer (FEP) liner or expanded PTFE seals (which are commonly used on other chemical resistant sealing solutions).

Because of this, they are as simple to install as any other seal within the VIPSeal® range, allowing dramatic time savings to be made on both installation and repairs along with providing a more consistent sealing performance.

Increased Range of Applications

By not using a fluoropolymer (FEP) liner or expanded PTFE seals, VIPSealChem is able to be manufactured as an adaptor coupling. This application allows pipes with significantly different outside diameters to be joined, ensuring VIPSealChem can be used without the need to make further alterations to existing pipes or prefabricated structures.

Standard couplings

- a. If repairing an existing section of pipe - Cut section from the pipeline using pipe cutter or disc saw and remove. This should be about 20mm longer than the junction or new section of pipe to be installed.
1. Mark off half a coupling width from each joint on each pipe section.
2. Loosen the tension and shear bands on the coupling and then slide the coupling onto each end of the existing pipe line (lubricant not required).
3. Position the new junction or pipe length and centre a coupling over one joint at a time using the marks previously made then begin to tighten up the worm drives, starting with the tension bands followed by the shear band.
4. Check each tension and shear band with a torque wrench to the recommended torque shown on each coupling. Once completed, carefully tamp bedding under the pipeline if applicable.



Drain couplings

1. Mark off half a coupling width from each joint on each pipe section.
2. Loosen the tension bands on the coupling and then slide the coupling onto each end of the existing pipe line (lubricant not required).
3. Position the new junction or pipe length and centre a coupling over one joint at a time using the marks previously made then begin to tighten the tension bands.
4. Check each tension band with a torque wrench to the recommended torque shown on each coupling. Once completed, carefully tamp bedding under the pipeline if applicable.

Adaptor couplings

1. Slide the coupling fully onto the larger pipe.
2. Measure the depth of the smaller end of the coupling and mark the length on the smaller pipe.
3. Insert the smaller pipe up to the mark and begin to tighten the tension bands.
4. Check each tension band with a torque wrench to the recommended torque shown on each coupling. Once completed, carefully tamp bedding under the pipeline if applicable.

- ✓ Manufactured in the UK 
- ✓ Constructed using the highest quality raw materials
- ✓ Tested to UK and international material and product performance standards
- ✓ Designed for ease of installation



Drainage Applications

VIPSealChem is available to order from the following standard core range:

Standard couplings

Ref No.	Size Range	Width
VSC115FKM	100 - 115mm	100mm
VSC137FKM	120 - 137mm	120mm
VSC165FKM	140 - 165mm	120mm
VSC200FKM	175 - 200mm	150mm
VSC265FKM	240 - 265mm	150mm
VSC275FKM	250 - 275mm	150mm
VSC290FKM	265 - 290mm	150mm
VSC320FKM	295 - 320mm	190mm
VSC385FKM	355 - 385mm	190mm

Drain couplings

Ref No.	Size Range	Width
VDC40FKM	32 - 40mm	68mm
VDC50FKM	40 - 50mm	68mm
VDC65FKM	50 - 65mm	90mm
VDC75FKM	60 - 75mm	108mm
VDC85FKM	70 - 85mm	100mm
VDC95FKM	80 - 95mm	100mm
VDC115FKM	100 - 115mm	100mm
VDC165FKM	140 - 165mm	120mm
VDC215FKM	190 - 215mm	150mm

Adaptor couplings

Ref No.	Size Range	Width
VAC1225FKM	110 - 122/ 48 - 56mm	100mm
VAC1221FKM	110 - 122/ 80 - 95mm	100mm
VAC5144FKM	110 - 125/100 - 115mm	100mm
VAC4000FKM	121 - 136/ 110 - 121mm	100mm
VAC1362FKM	121 - 136/ 100 - 115mm	100mm
VAC1602FKM	144 - 160/ 110 - 122mm	120mm
VAC1603FKM	144 - 160/ 121 - 136mm	120mm
VAC1922FKM	170 - 192/ 110 - 122mm	120mm
VAC1923FKM	170 - 192/ 121 - 136mm	120mm
VAC1924FKM	170 - 192/ 144 - 160mm	120mm
VAC2000FKM	180 - 200/ 130 - 145mm	150mm



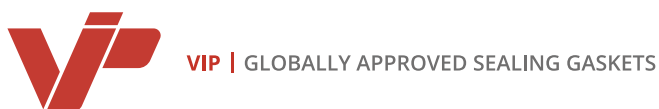
Sizes which are not listed in the tables above can be manufactured to order.

VIPSealChem flexible couplings are available to order in the sizes shown in the tables above. Alternatively they can be delivered direct from our UK factory, direct to site.

Lead times and availability for any other sizes not listed may vary.

Please contact us for more information

T: 0800 334 5547 F: 0800 334 5548 E: sales@vipseal.co.uk W: www.vipseal.co.uk



The VIPSeal® and VIPSealChem range of flexible couplings are VIP-Polymers Ltd products. With over 90 years of manufacturing heritage, VIP-Polymers Ltd has stayed on the cutting edge of materials technology by constantly looking to the future and driving product innovation through design.

As leading providers of high performance rubber mouldings and extrusion products to the water, utilities and infrastructure markets, we are a company that has a truly global reach with operations in Germany, India, China and the UAE.

For more information visit www.vip-polymers.com

NEW
Patent Pending



VIPSeal[®] Chem

Designed to perform, engineered to last

The Chemical Resistant Flexible Sealing Solution

Manufactured from FKM synthetic rubber, the new Patent Pending VIPSealChem is the latest addition to the VIPSeal[®] range for use in low and non-pressurised applications where a high chemical resistance is required and other synthetic rubber materials such as EPDM, SBR and NBR are unsuitable.

VIPSealChem couplings are manufactured to meet the demanding requirements of EN681-1 WB/WD and EN295-4 and provide a flexible and watertight connection on above and below ground drainage systems that require high resistance to a wide range of chemicals. VIPSealChem also operates in a wide range of temperatures.



Industry Applications

Due to its high resistance to a wide range of chemicals and temperatures, VIPSealChem is suitable for the following applications:



Chemical and Process Industries



Pharmaceutical, Medical and Research Laboratories



Food Processing Plants



Breweries



Dairies



Hospitals



Badly Contaminated Ground



Areas Susceptible to Fuel Spillages



Shear & Tension Bands

As per the VIPSeal® range, for general applications, VIPSealChem shear and tension bands are manufactured from 1.4301 (304) austenitic stainless steel.

For higher corrosion or contaminated ground areas and marine environments, grade 1.4401 (316) should be specified to eliminate the need for protective tape.

Note: Other stainless steel grades are available to order. Contact us for more information.

Flammability Characteristics

The FKM synthetic rubber used in VIPSealChem can be compounded not to burn in 100% oxygen. Speak to our technical team if this is required.

High and Low Temperature Service

FKM can be rated for long term service at 200°C without marked degradation of either the molecular structure or mechanical properties of the polymer. Under some service conditions and for reduced periods of exposure, temperature of above 300°C can be tolerated. FKM is also serviceable in dynamic applications down to -15°C and in static applications will perform well down to -30°C.

For applications where an extreme temperature resistance is required and EPDM is more suitable for chemical resistance, VIPSeal® flexible couplings can be manufactured in peroxide cured EPDM (EPDMp). Speak to our technical department for further details.

Chemical and Fluid Resistance

FKM has excellent resistance to hot oils, synthetic lubricants, gasolines, JP fuels, commercial dry cleaning fluids, aqueous acids/bases and many other organic solvents and chemicals (see below for performance rating summary):

Excellent Resistance (little or no effect)	Automotive fuels and oils Hydrocarbon Solvent Aircraft Fuels and Oils Hydraulic Fluids Certain Chlorinated Solvents
Good to Excellent Resistance (moderate effect)	Highly Aromatic Solvents Polar Solvents Water & Salt Solutions Aqueous Acids Dilute Alkaline Solutions Oxidative Environments
Not Recommended	Strong Caustic, Ammonia Certain Polar Solvents (Methyl Ethyl Ketone)

The tables on the facing pages provide a guide to some of the chemicals commonly used and how well FKM rubber performs against these. For a more comprehensive guide, you can download a copy from our website www.vipseal.co.uk

The information in the chemical compatibility guide is intended to be for general reference purposes only and is based on research and tests that were conducted under laboratory conditions, predominantly at room temperature (unless otherwise stated).

Real world applications can vary especially in instances where more than one chemical may be used which can in effect, create a 'cocktail' of chemicals thus making it difficult to predict the effect they may have on the materials used in the seal. Higher temperatures can also cause some fluids to have a stronger effect on the elastomer used. Any reliance on information is therefore at the user's own risk.

While every effort is made to ensure the accuracy of information in the chart is correct, VIP will not be liable for any loss, damage, claim or expense directly or indirectly arising or resulting from the use of any information provided in this guide.

For further information on the suitability or recommendation of any particular material, please contact our technical team technical@vipseal.co.uk or contact 0800 334 5548 and ask for the technical department.

A=Excellent, B=Good, C=Fair, X=Not Recommended, Blank=Insufficient Information

Chemical	SBR	EPDM	NBR	FKM
Acetic Acid 30%	-	A	C	C
Acetic Acid Chloride	-	X	X	A
Acetic Acid Vapors	-	A	X	X
Acetic Acid, 96-99,5% (Glacial)	-	B	X	X
Acetone	B	A	X	X
Acetylchloride	-	X	X	A
Aero Shell 17 Grease	-	X	A	A
Aero Lubriplate	-	X	A	A
Aero Shell 1 AC Grease	-	X	A	A
Aero Shell 7 A Grease	-	X	A	A
Aero Shell 750	-	X	B	A
Aero Shell Fluid 4	-	X	A	A
Alkyl Benzene	-	X	X	A
Aluminium Phosphate	-	A	A	A
Aluminium Sulfate	-	A	A	A
Ammonium Carbonate	-	A	A	X
Ammonium Chloride	-	A	A	A
Ammonium Hydroxide	-	A	X	X
Amyl Chloride	-	X	X	A
Amyl Naphtalene	-	X	X	A
Aniline Liquid	-	A	X	X
Aniline	X	X	X	B
Aromatic Fuels (up to 50% Aromatic)	-	X	A	A
Aromatic Hydrocarbons (100% Aromatic)	-	X	X	A
Asphalt, Emulsion	-	X	B	A
ASTM Test Fuel A	-	X	A	A
ASTM Test Fuel B	-	X	A	A
ASTM Test Fuel C	-	X	B	A
ASTM-Oil IRM 902	-	X	A	A
ASTM-Oil IRM 903	-	X	A	A
ASTM-Oil No.1	-	X	A	A
Automatic-Transmission Fluid	-	X	A	A
Automotive Gasoline	-	X	A	A
Barium Chloride Solution	-	A	A	A
Barium Hydroxide Solution	-	A	A	A
Benzaldehyde	-	B	X	X
Benzenesulfonic Acid	-	-	X	A
Benzine (Gasoline)	-	X	A	A
Benzine 70/Benzene 30	-	X	B	A
Benzine 80/Benzene 20	-	X	B	A
Benzol (Benzene)	X	X	X	A
Benzyl Alcohol	-	B	X	A
Benzyl Chloride	-	X	X	A
Biphenyl	-	X	X	A
Bitumen	-	X	X	A
Blast Furnace Gas	-	X	X	A
Bone Oil	-	X	A	A
Borax (Sodiumborate)	-	A	B	A
Borax Solutions	-	A	B	B
Boric Acid	-	A	A	A
Brake Fluids (based on mineral oil)	-	-	A	A
Bromine	X	X	X	B
Bromine Solution in Water	-	X	X	A
Bromine Water	-	-	-	A
Bromine Vapour	-	X	X	B
Bromobenzene	-	X	X	A
Bromochlorotrifluoroethan	-	X	X	A
Bunker Oil	-	X	B	A
Butane	-	X	A	A
1-Butanethiol	-	X	X	A
Butene	-	X	B	A
Butyl Acetate	-	B/C	X	X
Butyl Alcohol	-	A	A	A
Butyl Stearate	-	X	B	A
Butylene	-	X	B	A
Butyric Acid	-	X	B	A
Calcium Chloride	-	A	A	A
Calcium Hydroxide Solution	-	A	A	A
Calcium Hypochlorite Solution	-	A	C	A
Campher	-	X	A	B
Campher Oil	-	X	A	B
Carbon Disulfide	-	X	X	A
Chinawood Oil	-	X	A	A
Chloracetic Acid	-	A	X	X
Chloracetic Acid Ethylester	-	X	X	A
Chloric Acid	-	B	X	B
Chlorobenzene	-	X	X	B
Chlorobutadiene	-	X	X	B
Chloroform	-	X	X	B
Chloronaphthalene	-	X	X	A
(o)-Chlorophenol	-	X	X	A
Chlorothene	-	X	X	B
Chlorotoluene	-	X	X	A
Chlorotoluene	-	X	X	A
Chromo sulfuric Acid	-	X	X	A

Chemical	SBR	EPDM	NBR	FKM
Citric Acid	A	A	A	A
Citrous Oils	-	X	B	A
Coal Tar	-	X	B	B
Cobalt Chlorite	-	A	A	A
Cocoa Butter	-	X	A	A
Coconut Grease	-	X	A	A
Coconut Oil	-	X	A	A
Coconut, Fatty Acid	-	X	A	A
Coke Oven Gas	-	X	X	A
Copper Nitrate	-	A	B	A
Copper Sulfate (Blue Vitriol) Solution	-	A	A	A
Corn Oil	-	X	A	A
Cottonseed Oil	-	X	A	A
Crude Oil	X	X	B	A
Cumene	-	X	X	A
Cyclohexane	X	X	A	A
Cyclohexanole	-	X	B	A
(p)-Cymene	-	X	X	A
DDT Solutions (Kerosene Solvent)	-	X	A	A
DDT Solutions (Toluene Solvent)	-	X	X	A
Decalin (Decahydronaphtalene)	-	X	X	A
Decane	-	X	A	A
Diazinone	-	X	X	B
Dibromomethylbenzene	-	X	X	A
Dichlorobutane	-	X	B	A
Dichlorobutylene	-	X	X	B
Dichloroethane	-	X	X	B
Dichloroethylene	-	X	X	B
Dichloromethane	-	X	X	B
Dichloropentane	-	X	X	A
Dichlorobenzene	-	X	X	A
Diesel Fuel	-	X	A	A
Diesel Oil	-	X	A	A
Diethyl Benzene	-	X	X	A
Diethyl Carbonate	-	X	X	A
Di-Isobutylene	-	X	B	A
Di-Isopropyl Benzene	-	X	X	A
Dimethylbutane	-	X	A	A
Dipentene	-	X	B	A
Diphenyl	-	X	X	A
Diphenyl Ether	-	X	X	B
Diphenyle Oxide	-	X	X	A
Divinyl Benzene	-	X	X	A
DNCB (Dinitrochlorobenzene)	-	X	X	A
Domestic Fuel Oils	-	X	A	A
Dowtherm A	-	X	X	A
Dowtherm E	-	X	X	A
Essential Oils	-	X	X	B
Ether	-	C	X	X
Ethyl Alcohol, Ethanol	-	A	A	X
Ethyl Benzene	-	X	X	B
Ethyl Pentachlorobenzene	-	X	X	A
Ethylene	-	X	A	A
Ethylene Dibromide	-	X	X	A
Ethylene Dichloride	-	X	X	A
Fats (animal/vegetable)	-	X	A	A
Fatty Acids	-	X	B	A
Fir Oil	-	X	B	A
Fish Oil	-	X	A	A
Fluorobenzene	-	X	X	B
Formaldehyde (Formalin-Solution)	-	A	C	X
Formaldehyde (Methanal)	-	A	B	B
Formic Acid	A	B	X	X
Freon BF	-	X	B	A
Freon MF	-	X	B	B
Freon PCA	-	X	A	B
Freon TF	-	X	A	A
Fruit Juices	-	A	B	B
Furfural (Furfurylaldehyde)	X	-	C	-
Gallic Acid	-	B	A	A
Gas Oil	-	X	A	A
Gasoline, Reg	X	X	A	A
Gasoline, Lead Free	X	X	A	A
Gasoline, 100 Octane	-	X	A	A
Gasoline, 130 Octane	-	X	A	A
Gasoline, Aromatic	-	X	A	A
Gasoline, Ethyl and Regular	-	X	A	A
Gasoline, Refined	-	X	A	A
Gasoline, Sour	-	X	A	A
Gasoline, with Mercaptan	-	X	A	A
Gasoline/Alcohol Mix	-	X	B	B
Generator Gas	-	X	A	A
HEF-3	-	X	B	A
Heptane	-	X	A	A
Hexachloro Butadiene	-	X	X	A

Chemical	SBR	EPDM	NBR	FKM
Hexachloro Cyclohexane (Lindane)	-	X	-	A
Hexalin (Cyclohexanol)	-	X	A	A
Hexane	X	X	A	A
Hexene	-	X	B	A
Hydrobromic Acid	-	A	X	A
Hydrochloric Acid 37% 52°C	B	B	C	A
Hydrochloric Acid 100%	-	C	-	C
Hydrofluoric Acid (cold)	-	B	X	B
Hydrofluoric Acid (hot)	-	X	X	X
Hydrogen Peroxide 10%	C	X	C	-
Hydrogen Peroxide, concentrated	-	X	X	A-C
Hydrogen Peroxide 90%	X	C	X	B
Hydrogene Bromide, unhydrous	-	X	X	A
Iso-Butane	-	X	A	A
Iso-Butylene	-	X	A	A
Iso-Dodecane	-	X	A	A
Iso-Octane	-	X	A	A
Iso-Pentane	-	X	A	A
Iso-Propyl-Benzene	-	X	X	A
Iso-Propyl-Chloride	-	X	X	A
Jet Fuel JP3	-	X	A	A
Jet Fuel JP4	-	X	A	A
Jet Fuel JP5	-	X	A	A
Jet Fuel JP6	-	X	A	A
JP3 (Fuel)	-	X	A	A
JP4 (Fuel)	-	X	A	A
JP5 (Fuel)	-	X	A	A
JP6 (Fuel)	-	X	A	A
JPX (Fuel)	-	X	A	X
Kerosene	X	X	A	A
Lactic Acid	-	B	B	A
Lanolin	-	X	A	A
Lavender Oil	-	X	B	A
Ligroin	-	X	A	A
Linoleic Acid	-	X	B	A
Liquified Petroleum Gas	X	X	A	A
Lubricating Oils	X	X	A	A
Machinery Oil (mineral)	-	X	A	A
Magnesium Chloride Solution	-	A	A	A
Magnesium Sulfate (Epson Salts)	-	A	A	A
Malic Acid	-	B	A	A
Maleic Anhydride	-	X	X	B
Margarine	-	X	A	A
Mayonaise	-	X	A	X
Mercury	-	A	A	A
Methane	X	X	A	A
Methyl Bromide	-	X	X	A
Methyl Chloride	-	B	X	B
Methyl Cyclopentane	-	X	X	B
Methylene Chloride	-	X	X	B
2-Methylpentane	-	X	A	A
3-Methylpentane	-	X	A	A
Mineral Oil	-	X	A/B	A
Mineral Spirits	-	X	A	A
Monobromobenzene	-	X	X	B
Monochlorobenzene	-	X	X	B
Mononitrochlorobenzene	-	X	X	A
Naphtha	X	X	X	A
Naphthalene	-	X	X	A
Naphthenic Acid	-	X	B	A
Naphtolen ZD	-	X	B	A
Natural Gas	X	X	A	A
Nickel Chloride	-	A	A	A
Nickel Sulfate	-	A	A	A
Nitric Acid, concentrated	-	X	X	B
Nitric Acid, fuming	-	X	X	B
Nitric Acid 30% to 70%	X	X	X	C
Nut Oil	-	X	A	A
Octadecane	-	X	A	A
Octane	-	X	B	A
Octylcresol	-	X	C	B
Oil of Turpentine	-	X	B	A
Olefin, crude	-	X	A	A
Oleic Acid	-	X	A	A
Olive Oil	-	X	A	A
Ortho Dichloro Benzene	-	X	X	A
Oxalic Acid	-	A	B	A
Palm Kernel Oil	-	X	A	A
Palm Oil	-	X	A	A
Para Dichloro Benzene	-	X	X	A
Paraffin	-	X	A	A
Paraffin Oil	-	X	A	A
Peanut Oil	-	X	A	A
Penta Chloro Diphenyl	-	X	X	C
Pentane	-	X	A	A

Chemical	SBR	EPDM	NBR	FKM
Perchloric Acid	-	B	X	A
Perchloroethylene	X	X	X	A
Perchloro Ethylene	-	X	X	B
Petroleum	-	X	A	A
Petroleum Ether	-	X	A	A
Phenol	-	X	X	B
Phenyl Benzene	-	X	X	B
Phenyl Hydrazine	-	X	X	B
Phosphoric Acid	-	B	X	A
Pine Oil	-	X	B	A
Pinene	-	X	B	A
Potassium Bromide	-	A	A	A
Potassium Carbonate	-	A	A	A
Potassium Chlorate	-	A	X	A
Potassium Chloride	-	A	A	A
Potassium Chromate	-	A	B	A
Potassium Cyanide	-	A	A	A
Potassium Dichromate	-	A	A	A
Potassium Hydroxide (Solution 50%)	-	A	B	C
Potassium Hydroxide, Potassium Lye	-	A	B	X
Potassium Hydroxide 65°C	B	A	B	C
Potassium Nitrate	-	A	B	A
Potassium Permanganate	-	A	X	A
Potassium Sulfate	-	A	A	A
Potassium Sulfite	-	A	A	A
Propane	-	X	A	A
Propane Gas	X	X	A	A
Propylene	-	X	X	A
Rapeseed Oil	-	X	B	A
Silver Cyanide Solution	-	X	X	A
Silver Nitrate	-	A	B	A
Sodium Acetate	-	A	B	X
Sodium Bicarbonate Solution	-	A	A	A
Sodium Bisulfate Solution	-	A	A	A
Sodium Bisulfite Solution	-	A	A	A
Sodium Carbonate Solution	-	A	A	A
Sodium Chlorate	-	A	B	A
Sodium Chlorite	-	A	X	A
Sodium Cyanide Solution	-	A	B	-
Sodium Fluoride	-	A	A	A
Sodium Hydroxide	-	A	B	C
Sodium Hydroxide 65°C	B	A	B	C
Sodium Hypochlorite Solution	-	A	B	A
Sodium Nitrate	-	A	B	A
Sodium Sulfide	-	A	B	A
Sodium Sulfite Solution	-	A	A	A
Soy Bean Oil	-	X	A	A
Spermacetin	-	X	A	A
Stannic Chloride Solution	-	A	A	A
Stoddard Solvent	-	X	A	A
Styrene	-	X	X	A
Sulfur Chloride	-	X	X	A
Sulfuric Acid, diluted	-	A	B	A
Sulphuric Acid, 25% 65°C	C	B	X	A
Sulphuric Acid, 25%/50% 38°C	X	-	X	-
Sulfurous Acid	-	B	-	A
Tar	-	X	X	B
Tetrachloroethane	X	X	X	B
Tetrachloroethylene	X	X	X	A
Tetraethyl Lead	X	X	B	A
Toluene (Toluol)	X	X	X	B
Transformer Oil	-	X	B	A
Tributyl Marcaptane	-	X	X	A
Trichloro Benzene	-	X	-	A
Trichloro Ethylene	X	B/C	X	B
Triethylaluminium	-	X	-	B
Trifluoro Ethane	-	X	X	A
Tri-Iso-Propyl Benzene	-	X	A	A
Trinitrotoluene (TNT)	-	X	X	B
Turpentine	-	X	A	A
Vaseline	-	X	A	A
Vaseline Oil	-	X	A	A
Vegetable Oils	X	X	A	A
Vinylidene Chloride	-	X	X	B
Wax Alcohols	-	X	A	A
White Oil	X	X	A	A
Xylene (Xylol)	X	X	X	B
Zinc Sulfate	-	A	A	A

For further information on the suitability or recommendation of any particular material, please contact our technical team technical@vipseal.co.uk or contact 0800 334 5548 and ask for the technical department.