

A universal seal eliminating need for multiple MOC

# **CAMLOCK COUPLING GASKET**



# **ABOUT US**

We at KAF SEAL INC offer sealing solutions for a sustainable future. We combine both our own success with environmental protection and through our investment in innovative new sealing solutions we enable our customers in a wide range of industries to meet the complex needs of society both now and in the future.

It is our focus on customer service and quality that has seen us grow year on year since est. 2004.

#### What makes us different:

Growth in industrial technology has always remained to be dependent upon local availability of consumables this not only brings limitation to technology migration but also keeps industries underdeveloped holding back efficiency attracting no potential demands keeping skillset poor. This was soon realized by KAF-SEALS asking to bring world leaders in sealing technology across the globe together by collaborating fostering a culture of innovation that springs from a deep understanding of our customers industries and their unique sealing challenges that introduces industry specific designs from exceptional food-grade gaskets to metal gasketing for Oil & Gas, Pharma, Semiconductor, Marine, Refrigeration, Power and Process Industry with all required certifications in demand. As such, we continually work to introduce products that are environmentally friendly while also meeting our customers sealing objectives. Therefore we stand for key values like responsibility, continuity, the spirit of innovation & flexibility in thought & action.

Our business: We develop practical solutions to address goals of our changing world

Why people like us: We always stick to offer standard MOC to our customers covering wide temperature & chemical range that eliminates the need to check material compatibility each time in case of multiple MOC's to choose from.

#### **Core Values:**

- 1. We pursue excellence in order to continually improve
- 2. We promote, embrace and manage change
- 3. We champion honesty and fairness
- 4. We are committed to protecting the environment



## **Camlock Coupling Gasket**





#### **Product Description:**

# What are Encapsulated Kamlock™ Gaskets?

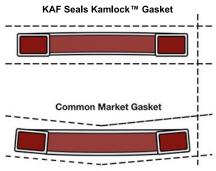
Encapsulated gaskets by KAF Seals for the universal sealing of cam and groove hose couplings. The rectangular cross-section inner core of silicone or Viton™ rubber is protected by an encapsulation

#### **Benefits**

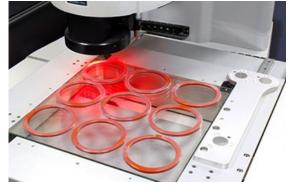
Exceptional resistance to aggressive chemicals and gas permeability

of FEP, providing extreme chemical and high temperature resistance.

- Low coefficient of friction allowing reduced wear of equipment
- Adaptive sealing force of an elastomeric 'O'-Ring
- Maintain standard MOC eliminating need of multiple MOC's
- Resistant to compression set/cold flow issues of solid 'O'-Rings
- Withstanding severe CIP/SIP regimes
- Unsusceptible to corrosive surface
- 3-A Sanitary, USP Class VI, FDA Regulation 21.CFR.177.1550, BSE/TSE, EU VO 1935/2004







**Micro-VU Inspection** 

KAF Seals gaskets are produced to be the highest quality available in the market. We have eliminated common product issues found in the market, guaranteeing a consistent fit and reliable performance.

- Minimal encapsulation-to-core gap reducing the potential for encapsulation damage
- Superior gasket flatness ensuring even contact across the sealing surface
- Smooth sealing surface free from warps and kinks to ensure no potential leak paths
- **Exceptional chemical resistance** a cost-efficient replacement for FFKM seals for aggressive chemicals

Coupling Size		Gasket Dimensions (inches)			Gasket Dimensions (mm)		
Inches	mm	OD	ID	Height	OD	ID	Height
0.500	12.70	1.024 (±.020)	0.669 (±.020)	0.157 (±.006)	26.00 (±0.51)	17.00 (±0.51)	4.00 (±0.15)
0.750	19.00	1.375 (±.025)	0.875 (±.020)	0.218 (±.006)	35.00 (±0.63)	22.20 (±0.63)	5.54 (±0.15)
1.000	25.40	1.563 (±.025)	1.063 (±.025)	0.250 (±.006)	39.70 (±0.63)	27.00 (±0.63)	6.35 (±0.15)
1.250	31.70	1.938 (±.030)	1.359 (±.030)	0.250 (±.006)	49.20 (±0.76)	34.50 (±0.76)	6.35 (±0.15)
1.500	38.00	2.188 (±.035)	1.625 (±.035)	0.250 (±.006)	55.60 (±0.89)	41.30 (±0.89)	6.35 (±0.15)
2.000	50.80	2.625 (±.035)	2.000 (±.035)	0.250 (±.006)	66.70 (±0.89)	50.80 (±0.89)	6.35 (±0.15)
2.500	63.50	3.125 (±.035)	2.375 (±.035)	0.250 (±.006)	79.40 (±0.89)	60.30 (±0.89)	6.35 (±0.15)
3.000	76.20	3.719 (±.040)	3.000 (±.040)	0.250 (±.006)	94.50 (±1.02)	76.20 (±1.02)	6.35 (±0.15)
4.000	101.60	4.875 (±.040)	4.000 (±.040)	0.250 (±.006)	123.60 (±1.02)	101.60 (±1.02)	6.35 (±0.15)
5.000	127.00	5.906 (±.050)	4.875 (±.050)	0.250 (±.006)	150.00 (±1.27)	123.80 (±1.27)	6.35 (±0.15)
6.000	152.40	7.063 (±.060)	6.000 (±.060)	0.250 (±.006)	179.40 (±1.52)	152.40 (±1.52)	6.35 (±0.15)

# **Typical Applications**

Gaskets provide a superior seal for any bulk liquid transfer in manufacturing, distribution or storage.

# **Chemical Processing:**

- From trucks to storage
- From storage to process areas

#### **Cosmetic Industry:**

- Transferring perfumes and oils
- Blending and batching oils and greases for soap

# **Petroleum Industry:**

- Deliveries to service stations
- Oil canning
- Blending grease and oil
- Mixing oil additives

# Paints & Dyes:

Mixing color pigments

#### **Pharmaceuticals:**

Blending raw materials

#### **Rubber & Plastics:**

• Blending liquids and resins

#### **Printing & Marking Equipment:**

Hose connectors

#### **Bulk Liquid Transfer:**

• Mining slurries, agricultural chemicals, brewing



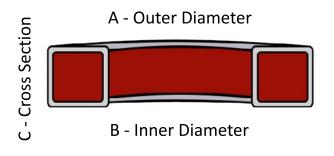


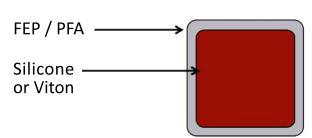


# Kamlock® Seals

Encapsulated Gaskets for KAMLOCK® Couplings are designed as universal, non-contaminating hose coupling seals. They eliminate the need to specify different elastomers for differing applications and eliminate coupling leakage through seal gasket failure, due to chemical attack or creep of solid Teflon® gasket seals. KAMLOCK® seals provide a superior seal for any bulk liquid transfer coupling in manufacturing, distribution or storage.

- Universal Gasket
   Extreme chemical resistance and wide temperature range.
- Leak Free Service
   Low compression set and elastomer core energiser avoids cold flow leakage of solid P.T.F.E.
- Non-Stick Surface
   Low co-efficient of friction (0.1 to 0.2)
   allows easy installation and removal.
- Sanitary, Sterilizable and F.D.A. Compliant Encapsulation eliminates contamination.





#### **Rectangular FEP Gasket For Kamlock Couplings**

Coup Nomin	_	Dimensions					
		Inches			mm		
Inches	mm	Α	В	С	Α	В	С
0.500"	12.70	1.024"	0.669"	0.157"	26.0	17.0	4.0
0.750"	19.00	1.375"	0.875"	0.218"	35.0	22.2	5.54
1.000"	25.40	1.563"	1.063"	0.250"	39.7	27.0	6.35
1.250"	31.70	1.938"	1.359"	0.250"	49.2	34.5	6.35
1.500"	38.00	2.188"	1.625"	0.250"	55.6	41.3	6.35
2.000"	50.80	2.625"	2.000"	0.250"	66.7	50.8	6.35
2.500"	63.50	3.125"	2.375"	0.250"	79.4	60.3	6.35
3.000"	76.20	3.719"	3.000"	0.250"	94.5	76.2	6.35
4.000"	101.60	4.875"	4.000"	0.250"	123.6	101.6	6.35
6.000"	152.40	7.063"	6.000"	0.250"	179.4	152.4	6.35

# F.E.P. Encapsulation Thickness Tolerances

A = 0.020" / 0.508mm B = +/- 0.030" / 0.762mm C = +/- 0.010" / 0.254mm



# **Chemical Resistance, Restricted Permeability and Absorption**

# Typical Chemicals with which FEP/PFA resins are compatible

The FEP / PFA encapsulation is the essential component of the Chem-Ring and it is resistant to practically all chemicals.

Within normal use temperatures, FEP/PFA resins are attacked by so few chemicals that it is more practical to describe the exceptions rather than to tabulate the chemicals with which they are compatible. Molten alkali metals, fluorine and several complex halogen compounds (chlorinetrifluroide) are incompatible with FEP/PFA resins.

In some instances, at or near the suggested service limit temperatures of FEP (204°C./400°F.) and PFA (260°C./500°F.), a few chemicals at high concentrations have been reported to be reactive.

Attack has been produced at such high temperatures by 80% NaOH or KOH, metal hydrides such as Borane (e.g. - B2 H6), aluminium chloride, ammonia (NH3), and certain amines (R - NH2) and Imine (R = NH). Also, slow oxidative attack has been abserved, by 70% nitric acid under pressure at 250°C./480°F.

Special testing is required when such extremes of reducing or oxidizing conditions are approached. Except for such chemicals under the conditions mentioned, it can be said that the Vulcan Chem-Ring R, is chemically inert.

## **Gas Permeability**

All thermoplastics have some permeability to gases primarily through intermolecular migration. In the cas of our FEP or PFA encapsulation, any gas permeation is at a substantially lower rate than most other plastics. Whilst highly corrosive gases do no normally chemically successfully attack, the FEP / PFA encapsulation, they may eventually permeate through and damage the elastomer core, and hence affect the seal's mechanical properties. Thus in addition to chemical resistance, permeability effects may have to be considered in some aggressive gas sealing systems.

Abietic acid Acetic acid Acetic anhydride Acetone Acetophenone Acrylic anhydride Alkyl methacrylate Ammonia, liquid Ammonium chloride Aniline Aqua Regia Benzoyl chloride Benzyl alcohol Benzoyl Peroxide Borax Boric acid Ferric phospate Fluoronitrobenzene Formaldehyde Formic acid **Furane** Gasoline Hexachloroethane Hexane Hydrazine Hydrochloric acid Hydrochloric acid Hydrochloric acid Hydrogen peroxide Isopropyl alcohol Isocyanates Lead compounds Magnesium chloride Mercury Methyl ethyl Ketone Methacrylic acid Methanol Methyl methacrylate

Napthalene

**Napthols** 

**Bromine** Diethyl carbonate N-Butyl amine Dimethly ether Dimethy formamide **Butyl** acetate Butyl methacrylate Di-isobutyl formamide Calcium chloride Dimethylformamide Carbon Disulfide Dimethyl hydrazine Cetane Chlorine Dioxane Chloroacetic Acid Ethyl acetate Chloroform Ethyl alcohol Chlorosulfonic acid Ethyl ether Chromic acid Ethyl hexanoate Cyclohexane Ethyl bromide Cyclo hexanone Ethylene glycol Dibutyl Phthalate Ferric Chloride Dibutyl sebacate Freons 2-nitro-butanol Potassium permanganate Nitromethane **Pvridine** Nitrogen tetroxide Soap and detergents 2-nitro-a2-methyl Proponal Sodium Fluoride N-Octadecyl alcohol Sodium hydroxide<80% Diesel Sodium hypochlorite Nitric acid Sodium peroxide Nitrobenzene Solvents, aliphatic2 Oils, animal and vegetable and aromatic2 Oleum Stannous Chloride Ozone Sulphur concentrate Perchlorethylene Sulphuric acid Pentachloro-Benzamide Tetrabromoethylene Perfluoroxylene Tetrachloroacetic acid Phenol Trichloroacetic acid Phosphoric acid Trichlorrthylene **Phosphorus** Tricresyl phosphate Pentachloride Triethanolanime Phthalic acid Turpaentine Pinene Unleaded fuel Piperidene Vinyl methacrylate Polyacrylonitrile Water Potassium acetate **Xylene** Potassium hydroxide<50% Zinc chloride

Size	1/2",3/4",1",1.25",1.5",2",2.5",3",4",5",6"	
Thread Type	BSPT	
Connection	Male Adaptor by Male Thread	
Material	Stainless Steel 316/304	
Pressure	20Bar / 290PSI	
Series Part	Part F	





Size	1/2",3/4",1",1.25",1.5",2",2.5",3",4",5",6"	
Connection	Female Coupler by Hose Tail	
Material	Stainless Steel 316/304	
Pressure	20Bar / 290 PSI	
Seal Type FEP Encapsulated Silicone		
Series Part	Part C	



Size	1/2",3/4",1",1.25",1.5",2",2.5",3",4",5",6"
Thread Type	BSPP
Connection	Male Adaptor by FemaleThread
Material	Stainless Steel 316/304
Pressure	20Bar / 290PSI
Series Part	Part A





Size	1/2",3/4",1",1.25",1.5",2",2.5",3",4",5",6"		
Connection	nection Female Coupler by Female Thread		
Material	Stainless Steel 316/304		
Pressure	20Bar / 290 PSI		
Seal Type	FEP Encapsulated Silicone		
Series Part	Part D		



# Kamlock / Quick Locks Seals





**Excellent Chemical Resistance -** FEP is chemically inert to all industrial inks, solvents and chemicals, even at elevated temperatures and pressures

**Resiliency -** Elastomeric cores provide an assured tight seal

**Wide Temperature Range -** Continuous service temperatures from - 75°F (-60°C) to +400°F (+205°C) for FEP & silicone.

**Low Coefficient of Friction -** Lubricious surface of FEP for easier gasket insertion

**Nonstick Surface -** Almost all substances release easily so cleanup is easier

**Universal Seal -** Handles practically any fluid. Eliminates matching the myriad elastomeric formulations with a specific requirement

**Sanitary** - Eliminates contamination associated with elastomeric gaskets.

# **Speciality in:**

#### **Ink Trays**

- 1. Ink trays available in all sizes
- 2. Avoids fire & frictions with special inserts of imported Teflon bush / cover
- 3. Splash Guard set

# **Ink Circulation system**

- 1. Ink Pump
- 2. Flame proof motor
- 3. Ink filter
- 4. Circular Ink Tank (capacity up to 60Ltr)
- 5. All Mechanical fittings

# **Ink Trolley**

- 1. Height adjustable
- 2. Movable

# **Viscosity System Controls**







# **Applications:**





**Bulk Storage Distribution** 



**Rail Tanker** 



**Bulk Storage Distribution** 



Networking Distribution

1403, Kaavya Beachwood Tower, Next to Sai Siddhi, Sector-8, Charkop, Kandivali West,

Mumbai: 400067, Maharashtra, India.

Contacts: +91 7400050022 | +91 9323684474

: +91 22 28684474 | 9474

Email : kafseals@live.in

: alkeshbhai@gmail.com

For more product details visit our Website: www.kaf-vulcanindia.com