



KAF SEAL INC.

FEP Encapsulated 'O'-Ring

Our encapsulated 'O'-rings for filtration applications offer a proven solution to common industry problems.

Any inner diameter size is available to fit your application

- Cartridge filter applicators - FEP/PFA with Viton™/FKM or Silicone core - most common sizes AS/BS 222/226
- Stainless Steel filter housings - FEP/PFA with Viton™/FKM or Silicone core - most common sizes AS/BS 334/435
- Bespoke sizes available - please contact our technical departments

Product and Service Benefits

- Complete batch traceability
- Complete quality assurance with our electronic systems
- ISO 9001:2015
- Bespoke and high accuracy inspection technology (CMM accuracy to 3µm)
- On-time delivery through customised supply and stocking contracts
- 24/7 personalised stock management Web Portal

Target Industry Sectors

- Chemical Process
- Aircraft and Aerospace
- Gasoline and Chemical Transport
- Oil Refineries
- Semiconductor Manufacture
- Photochemical
- Refrigeration Engineering
- Polymer Production
- Dye and Paint Manufacture
- Paper and Pulp Industry
- Food, Dairy and Beverage, Wine/Beer Industry
- Oil Extraction (Onshore and Offshore)
- Cosmetics and Perfumery
- Automotive Components
- Scientific Glassware Instruments
- Computer Chip Manufacturing Industry



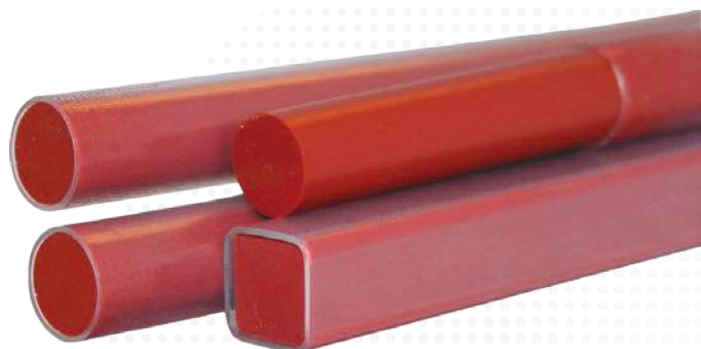


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Typical Applications

- Pumps and valves
- Chemical reactor vessels
- Mechanical seals
- Cartridge filters
- Pressure vessels
- Heat exchangers
- Autoclaves
- Cryogenics
- Hose couplings
- Pipelines
- Gas compressors
- Access covers
- Reusable syringes
- High purity water
- Gas service
- Cartridges
- Glass flanges
- Low pressure, quick disconnect piping system
- Vacuum service
- Glass heat exchanger tube/tube sheet seals
- Large diameter access covers
- Relief and emergency valves
- Mixers and vessels
- Spray paint
- Photoelectric work
- Tank cars and trucks (diffuser in tank)
- Filter elements
- Butterfly valves
- Air operated vents
- Scientific laboratory
- Lab reactors
- Sampling monitors (pesticide and personal impactor)
- Manways (T bolt hinge closure)
- Leak-free bottles
- Petroleum mixers
- Industrial concrete sprayer
- Stainless steel gas line holders
- Flowmeter
- Chimney
- Bulkhead fitting
- Turbines
- Magnetic vacuum breaker vapors recovery adapters
- Strainers
- Pressure pots
- Home irrigation turf and auto control





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KAF Red FEP encapsulated tanklid seals, manufactured to the highest standards, with a combination of FEP, an advanced fluoroplastic encapsulated and premium silicone core, produces a superior ring that provides repeated sealing in the harshest environments.

FEP/PFA are melt process able polymers of PTFE. We've developed the manufacturing technology to significantly develop the marriage between compounds of the PTFE family and the Encapsulate ring manufacturing process to produce a superior performance product that is offered multiple cross sections, in round , square or rectangular to fit all sizes of manlids.

Property	Test Method	Typical Value	Unit
Encapsulation Tensile Strength	ASTM D638 @ 24°C / 75°F	3400 / 234 / 23.0	Psi / Bar / MPa
Encapsulation Flex Modulus	ASTM D790	85,000 / 5,860 / 586	Psi / Bar / MPa
Encapsulation Folding Endurance	ASTM D2176	100,000	Cycles
Encapsulation Tear Strength	ASTM D1004 (Initial)	2.650 / 0.270	N / kg
Encapsulation Impact Strength	ASTM D256 @ 24°C / 75°F	No Break	J/m ²
Encapsulation Hardness	ASTM D2240	56	Shore
Encapsulation Specific Gravity	ASTM D792	2.15	g/cm ³
Encapsulation % Elongation @ Break	ASTM D638 @ 24°C / 75°F	325	%
Encapsulation Max Service Temperature	8,000 hour aging tests	205 / 400	°C / °F
Encapsulation Ignition Temperature	Vul045	≥530 / ≥986	°C / °F
Encapsulation Colour	Visual	Off Clear	N/A
Core Colour	Visual	Red	N/A
Moisture Absorption	Vul046a	<0.01	%

Chemical resistance, Restricted Permeability and Absorption

The FEP encapsulation is resistant to virtually all chemicals. Within normal use temperatures, FEP components react to so few chemicals that it is practically chemically inert. Special testing must be undertaken when extremes of operational conditions are approached.

Embrace Excellence – Service, Quality and Value

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Example of chemicals which FEP Products are compatible:

- Acetaldehyde
- Acetic Acid Benzyl Ester
- Acetic Acid Phenylmethyl Ester
- Acetic Anhydride
- Acetone
- Acetonitrile
- Acetophenone
- Acrylic Acid
- Acrylonitrile
- Alanine
- Allyl Alcohol
- Alpha-amino Propionic Acid
- Aluminium Chloride
- Aluminium Hydrate
- Aluminium Hydroxide
- Aluminium Salts
- Aluminium Trihydrate
- Amino Acids
- Ammonia
- Ammonium Chloride
- Ammonium Glycolate
- Ammonium Valerate
- Ammonium Salts
- Amyl Alcohol
- Amyl Chloride
- Aniline
- Aqua Regia
- Arsenic Acid
- Benzaldehyde
- Benzenamine
- Benzene
- Benzonitrile
- Benzyl Acetate
- Benzyl Alcohol
- Boric Acid
- Bromine
- Bromoform
- Butadiene
- Butene
- Butyl Acetate
- Butyl Alcohol
- Butyl Chloride
- Butyl Citrate
- Butyric Acid
- Calcium Chloride
- Calcium Hypochlorite
- Carbon Disulfide
- Carbazole
- Carbon Tetrachloride
- Cedarwood Oil
- Cellosolve® Acetate
- Chloroacetophenone
- Chlorobenzene
- Chloroform
- Chloral
- Cinnamaldehyde
- Cinnamyl Alcohol
- Copper Sulfate
- Cresol
- Cyanethylene
- Cyclohexane
- Cyclohexanone
- Cyclopentane
- Decahydronaphthalene
- Decalin
- Decane
- Diacetone Alcohol
- Dibutyl Phthalate
- Dichlorobenzene
- Diethyl Benzene
- Diethyl Ether
- Diethyl Malonate
- Diethylamine
- Diethylene Glycol
- Diethylene Glycol Monoethyl Ether
- Disopropyl Ether
- Dimethyl Acetamide
- Dimethyl Formamide
- Dimethylsulfoxide
- Dioxane
- DIPE
- Dipropylene Glycol
- DMSO
- Ethanone
- Ether
- Ethyl Acetate
- Ethyl Alcohol
- Ethyl Benzoate
- Ethyl Butyrate
- Ethyl Cyanoacetate
- Ethyl Lactate
- Ethylene Chloride
- Ethylene Glycol
- Ethylene Glycol Monoethyl Ether
- Ethylene Oxide
- Fatty Acids, Saturated
- Fatty Acids, Unsaturated
- Fluorides
- Formic Acid
- Freon TF
- Fuel Oil No. 1
- Gasoline
- Glutaraldehyde
- Glycerine
- Glycerol
- Heptane
- Hexane
- Hydrated Alumina
- Hydroxybenzaldehyde
- Iodine Crystals
- Isobutanol
- Isopropanol
- Isopropoxypropane
- Isopropyl Acetate
- Isopropyl Alcohol
- Isopropyl Benzene
- Isopropyl Ether
- Jet Fuel
- Kerosene
- Lacquer Thinner
- Lead Acetate
- Magnesium Chloride
- MEK
- Mercuric Chloride
- Methoxyethanol
- Methoxyethyl Oleate
- Methyl Acetate
- Methyl Alcohol
- Methyl Ethyl Ketone
- Methyl Isobutyl Ketone
- Methyl Propyl Ketone
- Methylcyclohexane
- Methyl-t-Butyl Ether
- MIBK
- Mineral Spirits
- Mixture of Nitric and Hydrochloric Acids
- Nitrobenzene
- Nitrochlorohydric Acid
- Nitromethane
- Octane
- Oil, Cedarwood
- Oil, Cinnamon
- Oil, Mineral
- Oil, Orange
- Oil, Pine
- Orange Oil
- Orthosacric Acid
- Ozone
- Pentanol
- Pentyl Acetate
- Perchloroethylene
- Petroleum
- Phenyl Methyl Ketone
- Phenyl-2-propanol
- Phenylacetone
- Phenylethanone
- Pine Oil
- Potassium Chloride
- Potassium Permanganate
- Propane
- Propanoic Acid
- Propylene Glycol
- Propylene Glycol Monomethyl Ether
- Propyl Alcohol
- Pyridine
- Salicylic Acid
- Silicone Oil
- Silver Acetate
- Silver Nitrate
- Skydrol LD4 Aviation Hydraulic Fluid
- Soda Ash
- Sodium Acetate
- Sodium Carbonate
- Sodium Dichromate
- Stearic Acid
- Sulfur Dioxide
- Sulfur Salts
- Tartaric Acid
- Thiophene
- Thiophosphoryl Chloride
- Tincture of Iodine
- Toluene
- Tributyltin Citrate
- Trichloroacetic Acid
- Triethylene Glycol
- Trimethylpentane
- Tripropylene Glycol
- Tris Buffer Solution, pH 7.0
- Trisodium Phosphate
- Tung Oil
- Undecanol
- Urea
- Vinyl Cyanide
- Water H2O
- White Spirits
- Xylene
- Zinc Chloride
- Zinc Stearate