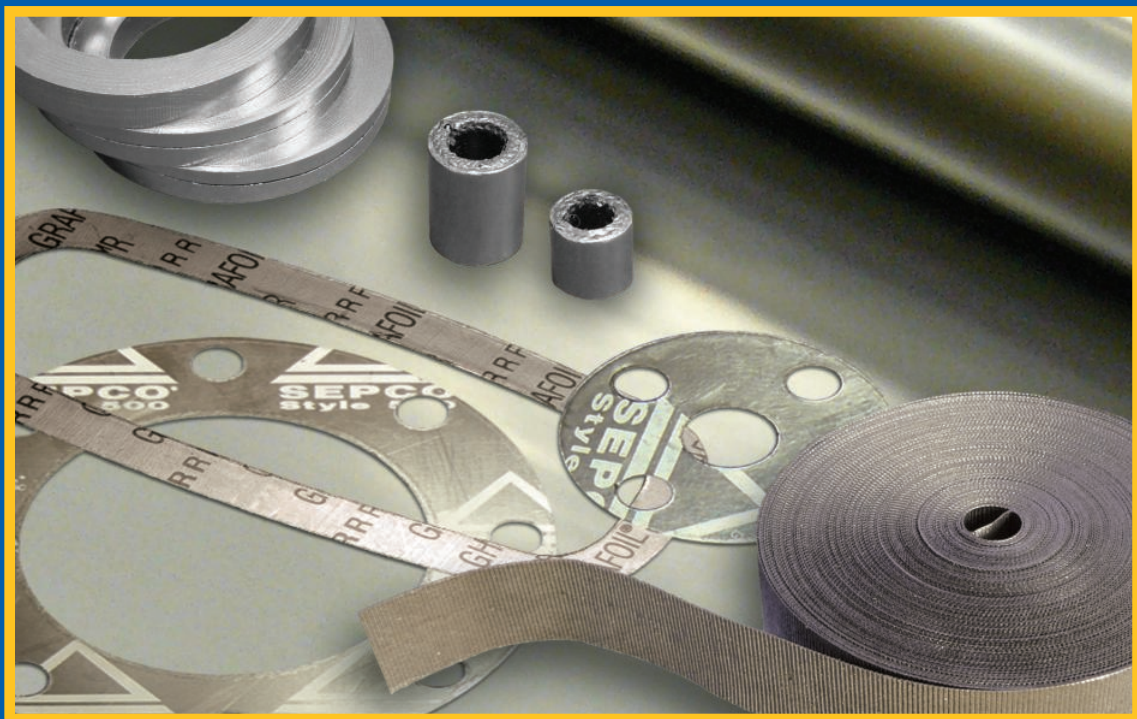


F L E X I B L E G R A P H I T E

SEPCO®

Sealing Equipment Products Co., Inc.



GOODYEAR
RUBBER PRODUCTS, INC.

☎ 727-342-5088

You can also email us at
GRP@goodyearrubberproducts.com



SEALING EQUIPMENT PRODUCTS Co., Inc.

QUALITY FLUID SEALING SOLUTIONS FOR INDUSTRY.

SEALING EQUIPMENT PRODUCTS COMPANY, HEADQUARTERED IN ALABASTER, ALABAMA, IS A MANUFACTURER WITH A LONG STANDING TRADITION OF PROVIDING THE HIGHEST QUALITY FLUID SEALING SOLUTIONS AVAILABLE IN THE MARKET PLACE. OUR PRIMARY FOCUS IS TO DELIVER EXCELLENT CUSTOMER SERVICE. WITH OVER 145,000 SQUARE FEET OF MANUFACTURING SPACE IN OUR STATE OF THE ART FACILITY WE ARE ONE OF THE LARGEST FEMALE OWNED BUSINESSES IN THE SOUTHEAST.

MAJOR PRODUCT AND SERVICES

OUR PRODUCTS ARE USED IN A WIDE VARIETY OF PROBLEM SOLVING APPLICATIONS WORLD WIDE. THE PRODUCT LINE INCLUDES: COMPRESSION PUMP PACKING, DIE-FORMED AND CUT RINGS, GASKETS, GASKETING MATERIAL, FLEXIBLE GRAPHITE AND FIBERGLASS PRODUCTS INCLUDING FIRESLEEVEING. ONE OF THE COMPANIES FASTEST GROWING PRODUCT LINES IS MECHANICAL SEALS. WE ARE LEADING THE WAY IN INNOVATIVE DESIGNS THAT MAKE MECHANICAL SEAL REPAIR PROGRAMS OBSOLETE.

MARKETS

SEALING EQUIPMENT PRODUCTS COMPANY HAS AN EXTENSIVE NETWORK OF INDUSTRIAL DISTRIBUTORS WHO PROVIDE FLUID SEALING PRODUCTS TO ELECTRICAL UTILITIES, PULP AND PAPER MILLS, REFINERIES, WASTE WATER TREATMENT PLANTS, MINING OPERATIONS, CHEMICAL PROCESSING PLANTS AND OTHER PROCESS INDUSTRIES. IN ADDITION, THE COMPANY IS A CERTIFIED SUPPLIER TO PUMP AND VALVE MANUFACTURERS.

QUALITY

SEALING EQUIPMENT PRODUCTS COMPANY IS CERTIFIED TO ISO 9001: 2000 STANDARDS.

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DIE FORMED FLEXIBLE GRAPHITE RINGS

SEPCO® PUTS LIFE INTO DIE-FORMED RINGS

Standard die forming of Flexible Graphite squeezes the life out of the ring—that is why we pre-form. We put compressibility and resilience into each ring and that is what makes the difference. When you receive a pre-formed ring from SEPCO®, it still has 15% to 20% compressibility left in it. As you install the ring, it is only necessary to tighten the packing until a seal is affected, which leaves considerable life in the ring for future adjustments. The extra care we take makes the difference.

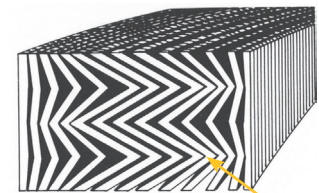
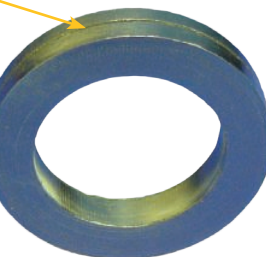
Consider the Benefits of Die-formed Flexible Graphite

- Individually formed to meet your specific dimensions.
- Slight interference fit to bore and stem to insure a tight seal.
- Less waste that conventional coils of packing.
- No need to pull old packing out. Simply add ring when needed
- Even distribution of work load to each ring.

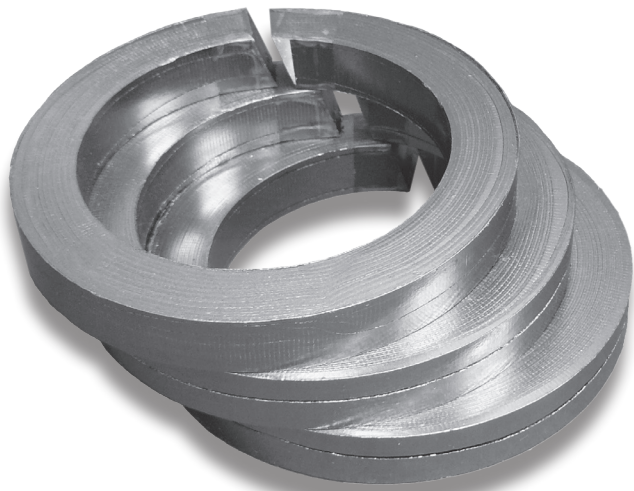
Note: For clearance a greater than .020 between stem and stuffing box, SEPCO® suggests braided carbon packing rings on Top and Bottom of stuffing box as an anti-extrusion rings.

Fold, which appears in performing, is not Significant and will disappear when ring is compressed in stuffing box.

A partially compressed ring as furnished by SEPCO®.

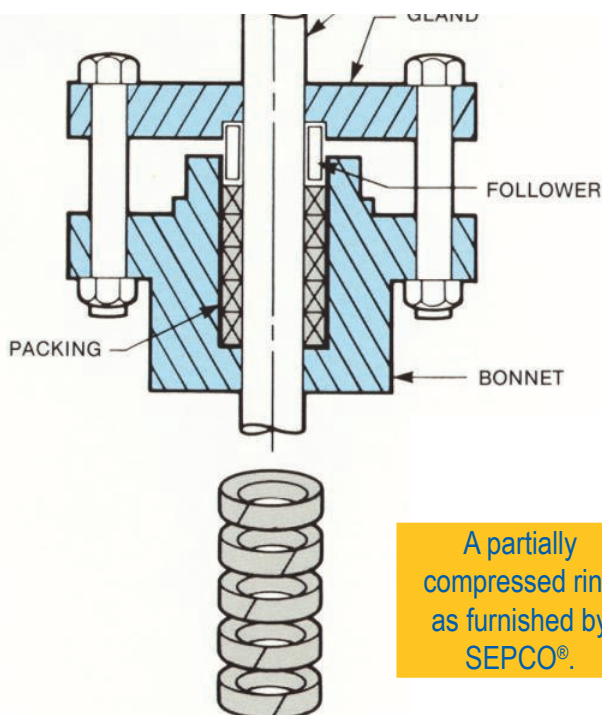


Pattern of folds (opened for illustration) assures uniform distribution of thermal expansion and thermal conductivity, as well as maximum resilience. We pre-form it that way.



MIL-P-24503B (SH) TYPE II

THE EFFECTIVE METHOD FOR VALVE STEM PACKING



DIE FORMED CARTRIDGE FLEXIBLE GRAPHITE

STYLE G2 CARTRIDGE "THE ELIMINATOR"

An innovative flexible graphite cartridge with built-in end rings. The flexible graphite cartridge incorporates individual graphite rings with end rings to make valve stem packing easier and more efficient. SEPCO® Style G2 was specifically designed for valve manufacturers. In independent laboratory tests, the G2 cartridge maintained less than 100 parts per million fugitive emission leak rate and passed the A.P.I. (American Petroleum Institute) 607 fire test.

The G2 not only eliminates the need for individual packing rings, but it also:

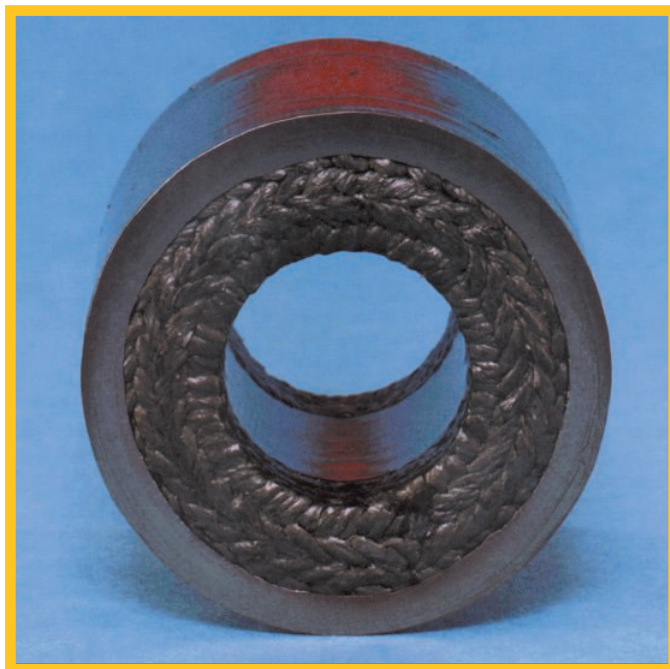
Eliminates: The costly labor needed to pack valves. With SEPCO's G2, you can automate your production line and save time and money.

Eliminates: The need to purchase and stock various styles of die formed rings. With the G2 you have the complete seal in one, easy-to-install cartridge.

Eliminates: The worry of braided, non-asbestos packing being capable of performing in high temperature, high pressure applications. SEPCO® G2 cartridges are manufactured from flexible graphite, a product proven in the field to have high temperature and high pressure capabilities far greater than those of braided packing.

Eliminates: The worry over corrosion. The G2 can be supplied with either a passive or active inhibitor. The choice is yours.

Eliminates: Problems while increasing your profit. That's what the SEPCO® G2 "Eliminator" is all about.



U.S. Patents 5050298 & 5135240

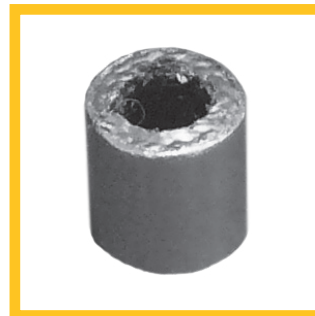
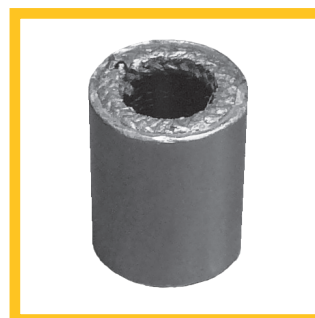
SPECIFICATIONS

Style G2 flexible graphite cartridge

Pressures: up to 2500 psi

Temperatures: 1250° F in steam
850° F in oxidizing atmosphere
3000° F in reducing atmosphere

MIL-P-24503B (SH) TYPE II
MIL-P-24583B (SH) TYPE I



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FLEXIBLE GRAPHITE RIBBON-PACK



MIL-P-25403B (SH) TYPE I

Ribbon-Pack feature

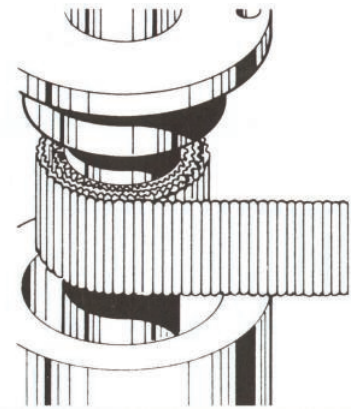
- It's all graphite.
- It's self lubricating.
- It's corrosive resistant.
- It's free from resins, fillers and binders.
- It won't soften, carbonize, chalk, shrink, lint, harden or cold flow.
- It dissipates heat.
- It withstands high pressures.
- It will operate leak-free.
- It's dimensionally stable at all temperatures.
- Treated with corrosion inhibitor.

Consider these Benefits

- It's easy to install. *Simply wind the ribbon around the shaft until the desired thickness is attained.*
- Stuffing box dimensions do not have to be taken.
- Operates leak-free
- No pump dismantling required as with a mechanical seal.
- One packing for all pumps and valves.
- No packing required just add rings.
- Minimum inventory.
- Less shaft wear.
- Less down time.
- Faster break in.
- Fewer sizes to stock.
- Less friction.
- Cooler running

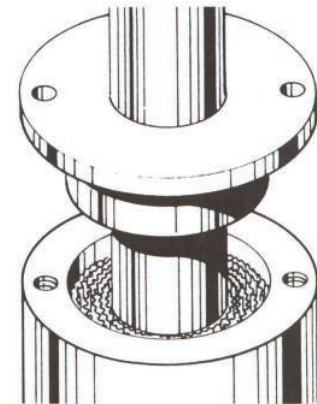
INSTALLING RIBBON-PACK IS A SNAP ... JUST 1 2 3

1



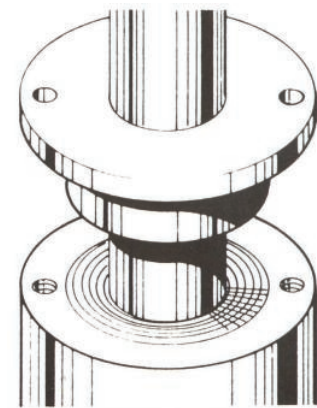
Wrap Ribbon-Pack around shaft or stem

2



Shove winding into stuffing box, compress 50%

3



Repeat steps 1 and 2 until box is filled

FLEXIBLE GRAPHITE CRINKLE GASKET TAPE

ALL TEMPERATURE CORROSION RESISTANT SELF ADHESIVE

INSTALLATION INSTRUCTIONS

1. Brush off any rust or foreign particles. Wipe flange surface thoroughly with rag soaked in acetone or other suitable solvent to revoke grease or oil.
2. Insert fingernail between the paper backing strip and the tape and strip paper back three to six inches as illustrated. Draw reference line on flange and press squared-off end of tape against it.
3. Now, start laying the tape along the face of the flange, peeling the paper backing as you go. To prevent the adhesive surfaces of the tape from doubling back on themselves and sticking together, strip away only a few inches of paper at a time as shown.
4. When the starting point has been reached, lap the tape not more than 1/16 inch and cut with a sharp blade as pictured.
5. If wrinkles appear because of improper installation they may be rolled out with a length of pipe as shown.

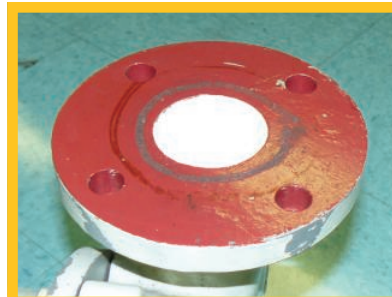
FOR MULTIPLE-THICKNESS GASKET, ADD STEPS 6, 7, AND 8

6. When the starting point has been reached, do not cut the tape. Roll out the tape already laid down, using a short length of smooth pipe to iron out the wrinkles.
7. Now repeat step 3. Be sure that the top layer is positioned exactly above the first layer before contact is made. Once the adhesive touches the tape, it is impossible to separate the layers without tearing them.
8. Repeat steps 6 or 7, depending on the number of layers of tape to be laid down, and finish with steps 4 and 5.

- Make your own gasket on the spot
- Stays put with adhesive back
- Crinkling permits installation on sharp
- Radius down to 3" diameter
- Use as an emergency gasket

MIL-P-25403B (SH) TYPE I

1



2



3



4



5



FLEXIBLE GRAPHITE GASKETS

SEPCO® Flexible Graphite Gaskets

- Leak free performance at moderate bolt loads
- No cold flow or creep
- Precision bolt tightening unnecessary
- No flange sticking

Gasket Loading vs. Leakage Pressures

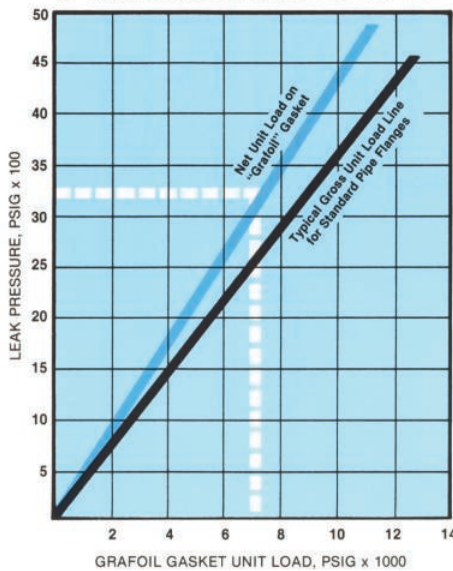
The prime requirement for satisfactory sealing with Flexible Graphite gaskets is sufficient unit load on the gasket at all times and at all points on the gasket.

If surfaces are maintained flat within 0.005 inches, and are held to a surface finish of 125 RMS or better, Flexible Graphite gaskets will seal hydrostatic pressures as shown on the graph, "Leak Pressure vs. Gasket Unit Load for Flexible Graphite Gaskets." For example, a Net Unit Load of 7,000 psi (see dashed line on chart), will seal up to 3.150 psi water pressure.

The Net Unit Load is that force still exerted on the gasket surface after all the forces which tend to relieve the initial unit load are subtracted. One such opposing force is the "piston" action of the sealed pressure on the area within the gasket I.D. Others are: bolt stretch, piping stress, differential thermal expansion and the relaxation, under stress, of the gasket material. The initial load on Flexible Graphite gaskets must be enough to end up, under operating conditions, at or above the Net Unit Load indicated on the graph.



LEAK PRESSURE VS. "GRAFOIL" GASKET UNIT LOAD for "Grafoil" Gaskets 1/64, 1/32, and 1/16 Inches Thick



TYPICAL PROPERTIES... "FLEXIBLE GRAPHITE" GASKETS

PROPERTY	UNIT	VALUE	PROPERTY	UNIT	VALUE
"m" factor	-	2	Functional Temperature Range (Oxidizing Atmosphere)	°F	-400 TO F4**
"y" stress	PSI	900	Thermal Conductivity at RT		
Maximum Gasket Load	PSI	24,000*	Through Thickness	BTU/HR/FT2/°F/FT	3
Maximum Operating Pressure	PSI	10,000*	Radially	"	100
Functional Temperature Range (Neutral or Reducing Atmosphere)	°F	-400 TO 3000*	Electrical Conductivity Radially	Ohm-cm	4.6 X 104

*Where higher operating levels are contemplated, consult with our Technical Service Department.

**The fluid temperature may considerably exceed 850°F providing that the bulk temperature of the Flexible Graphite gasket is 850°F or below or that the fluid being handled does not come into direct contact with the graphite. Example: a metal spiral-wound gasket with a Flexible Graphite film material.

TYPICAL FLEXIBLE GRAPHITE PROPERTIES

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Typical Material Properties

Properties	English	Metric
Density (ASTM F-1315)	70 lb/ft ³	1.12 g/cc
Leachable Chloride Content-Industrial Grades Premium (Nuclear) Grades	<50 ppm	
Premium (Nuclear) Grades	<20 ppm	
Sulfur Content -		
Industrial Grades	550 ppm	
Premium (Nuclear) Grades	450 ppm	
Carbon Content -		
Industrial Grades	0.98	
Premium (Nuclear) Grades	99.9%	
Compressibility (ASTM F-36)	0.43	
Recovery (ASTM F-36)	0.15	
Creep Relaxation (ASTM F-38)	<5%	
Sealability (ASTM F-37)	0.017 fluid ounces/hr	0.5 ml/hr

Typical Physical Properties

Properties	English	Metric
Tensile Strength - (ASTM F-152)		
Along Length & Width Industrial Grades	650 psi	4.4 Mpa
Premium (Nuclear) Grades	1000 psi	6.9 Mpa
Coefficient of Friction against Steel		
@ 4 psi (0.03 MPa)	0.018	
@ 8 psi (0.06 MPa)	0.052	
@ 12 psi (0.08 MPa)	0.157	
Compressive Strength		
Through Thickness (ASTM C-695)	35000 psi	240 Mpa
Modulus of Elasticity	0.2 X 10 ⁶ psi	1380 Mpa
Young's Compressive Modulus Through Thickness	27000 psi	186 Mpa

Functional/Temperature Range

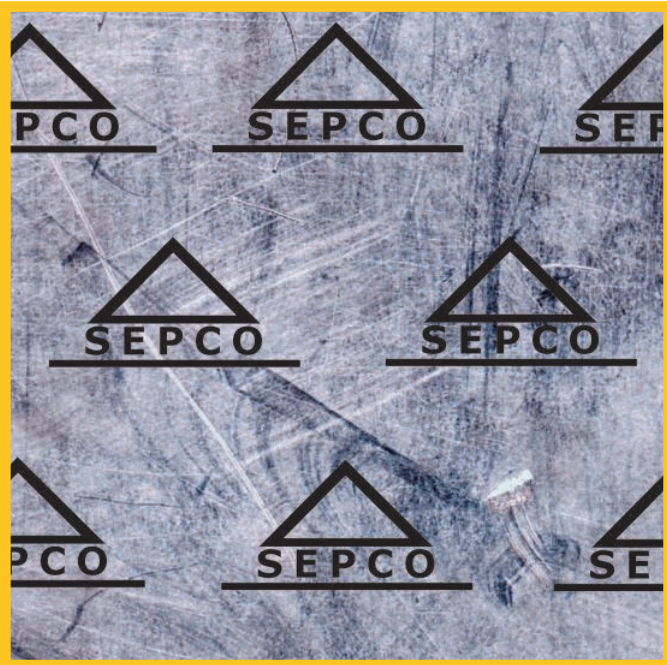
Properties	English	Metric
Neutral or Reducing Atmosphere	-400 to 5400° F	-240 to 3000° C
Oxidizing Atmosphere		
GT TM A Grade	-400 to 850° F**	-240 to 450° C**
GT TM B, GT TM K,GT TM J Grade	-400 to 975° F**	-240 to 525° C**
Thermal Conductivity		
Along Length & Width	960 BTU-in/ft ² -h-F	140 W/m-K
Through Thickness	36 BTU-in/ft ² -h-f	5 W/m-K
Thermal Expansion "a" Direction Parallel to Layers		
70°F-2000°F (21°C-1094°C)	-0.2 X 10 ⁻⁶ in/in-F	-0.4 X 10 ⁻⁶ m/m-°C
2000°F-4000°F (1094°C-2206°C) "c" Direction, Through Thickness	0.5 X 10 ⁻⁶ in/in-F	0.9 X 10 ⁻⁶ m/m-°C
70°F-4000°F (21°C-2206°C)	15 X 10 ⁻⁶ in/in-F	27 X 10 ⁻⁶ m/m-°C
Specific Heat at 75°F (24°C)	0.17 BTU/lb-°F	711 J/kg-K
Heat Storage in a 0.015" layer At 1000°F (538°C)	0.035 BTU/ft ² -°F	0.02 cal/cm ² -°F
Surface Emissivity	0.5	0.5
Sublimation Point (Does Not Melt)	6000°F	3300°C
Thermal Shock Resistance	Excellent	

**The fluid temperature in an oxidizing atmosphere may considerably exceed the indicated temperature without oxidation of the flexible graphite providing that the bulk temperature of the flexible graphite gasket is below these temperatures or that the fluid being handled does not come into direct contact with the graphite.

Nuclear Radiation Resistance

Exposure Levels	Results
* 5.5 X 10 ²¹ NVT @ 1000°C	No Apparent Effect
1.5 X 10 ⁹ rads Gamma Radiation (1.5 X 10 ¹¹ erg/g)	No Apparent Effect
**Source: Oak Ridge National Laboratory (1978)	
*Integrated Neutron Flux:	
N = Neutrons/cc	
V = cm/sec	
T = Seconds	
(1 rad = 100erg/g)	

FLEXIBLE GRAPHITE SHEETS



"Since the performance of the gasket material is dependent on many other factors not related to the gasket itself, purchaser is **WARNED** that the maximum operating conditions shown in the Technical Data Chart may not be achieved under the certain conditions. Purchaser is therefore urged to test the gasket material under the actual conditions of assembly and operation to determine the appropriate maximum operating conditions."

SEPCO® STYLE 2000

This exciting new sheet gasket has a unique design that eliminates the metal insert requirement for structural support. **Style 2000** utilizes a .0005 inch thick polyester insert for ease of handling with a 90% minimum graphite content. Features of our Style 2000 include: High temperature (up to 850°F), low bolt torque requirement, easy to handle, and a full pH range of 0-14. **Style 2000** replaces compressed sheet gasket and is very easy to fabricate.

SPECIFICATIONS

Style: 2000 Compressed Sheet Gasket

Binder: .0005 Polyester Binder

Color: Gray / Black

Pressures: 5000+ psi max.

pH: 0-14

Gasket Factor (m): 2

Temperatures: 850°F max in atmosphere
1200°F max in steam

SEPCO® STYLE 500

Style 500 is manufactured from 98% minimum pure graphite with a .002" thick 316 stainless steel insert that reduces gasket handling damage and increases pressure resistance. **Style 500** has no binders or resins to cook out and will not cold flow. Recommended for high temperature and high pressure applications.

SPECIFICATIONS

Style: 500 Compressed Sheet Gasket

Binder: .002" Stainless Foil Binder

Color: Metallic

Pressures: 5000+ psi max.

pH: 0-14

Temperatures: In atmosphere: 932 degrees F max
In steam: 1200 degrees F max

Sizes: 60" x 60"

Thicknesses: 1/64", 1/32", 1/16", 3/32", 1/8", 1/4"



"Since the performance of the gasket material is dependent on many other factors not related to the gasket itself, purchaser is **WARNED** that the maximum operating conditions shown in the Technical Data Chart may not be achieved under the certain conditions. Purchaser is therefore urged to test the gasket material under the actual conditions of assembly and operation to determine the appropriate maximum operating conditions."

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2003 GRAPHASEAL

STYLE 2003 GRAPHASEAL

APPLICATIONS:

Critical valve stems, rising stem applications, compliance valves, nuclear valves, sealing volatile organic and inorganic chemicals and high speed pumps

SIZES & AVAILABILITY:

5 foot spirals or die formed rings. 1/8" and up cross sections in /16" increments

FEATURES:

Compressible, solid graphite jacket, easy to remove with packing hook, furnished in spirals, fire resistant, passivating corrosion inhibitor standard and excellent heat resistance.

BENEFITS:

Deforms to accommodate worn valve stems; Excellent radial expansion; Prevents leakage associated with braided products; Prevents stem damage and reduces repack time; Easy to install; One spiral does the job of many die formed ring sets; No end rings required; Conforms to requirements of API 589 and API 607 Fire Test; Prevents corrosion and Reduced packing consolidation.



SPECIFICATIONS

Fiber Family: Graphite

Construction: Flexible graphite jacket encasing carbon

Braid: Multi-Lok Braid

Service Temperatures: Steam 1200°F /650°C; 5000°F /2760°C non-oxidizing atmosphere.

Service Pressure: 4000psi (275 bar)

pH Range: 0-14

Speeds: 4000fpm (20 m/s)

Lubrication: None

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BRAIDED FLEXIBLE GRAPHITE



SEPCO®

STYLE ML2001

The only valve stem packing you require!

ML2001 Valve Stem Packing is a homogenous flexible graphite yarn bonded to a high temperature carrier for strength and thermal stability. Flexible Graphite has long been the valve stem packing of choice to the valve manufacturers involving high temperature and pressures, steam, and applications which require low fugitive emissions. **ML2001** is easily cut into rings in the field or shop and is available from SEPCO in bulk spools or die-formed ring sets.

ML2001 Valve Stem Packing has been tested by third party, independent test laboratories, and shown to be rugged enough to pass the most stringent tests recognized by the API and Valve Manufacturers. Test results are available upon request.

ML2001 is available in bulk spools, spiral pack, and pre-cut or die formed ring sets. In addition, **ML2001** will also be available with corrosion inhibitors for valve service.

SPECIFICATIONS

Sizes Available: 1/8" - 1"

Spool Sizes: 1, 2, 3, 10, & 25 pound

Corrosion Inhibitors: Active-Zinc, Specify ML2001Z
Passive-Phosphate, Specify L2001P

Limitations: 1200 °F / 649°C in steam 850°F / 454°C in Oxidizing Atmosphere;
Pressures up to 4500 psi

API 607, 4th Edition Fire Test Passed!
Fugitive Emission Test Less Than 100PPM

ML2001

A Multi Lok construction of Braided Flexible Graphite. Recommended for rotating shafts where high shaft speed and thermal conductivity is needed. Limitations: Shaft speed to 4000 fpm, temperatures to +850 degrees F / +455 degrees C, pH range 0-14. Temperatures to +1200 degrees F / +650 degrees C in steam. Pressures to 4500 psi steam service.

ML2001Z

A Multi Lok Construction of Braided Flexible Graphite with an active zinc corrosion inhibitor coating. Recommended for high temperature and high pressure steam applications associated with valves. Limitations: Temperatures to +1200 degrees F / +650 degrees C in steam. Pressures to 4500 psi steam service.

ML2001P

A Multi Lok construction of Braided Flexible Graphite with a passive corrosion inhibitor coating. Recommended for high temperature and high pressure steam applications associated with valves. Limitations: Temperatures to +1200 degrees F / +650 degrees C in steam. Pressure to 4500 psi steam service.

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BRAIDED FLEXIBLE GRAPHITE

ML2001W is a pure homogenous graphite bonded to a fiberglass carrier for strength and thermal stability. Each strand of yarn also has an Inconel wire insertion. It is Recommended for valve and static applications. ML2001W is available in bulk spools, spiral pack, and pre-cut or die formed ring sets.

ML2001W is a Multi-Lok braided graphite foil packing. No added lubricants or binders to cook out or become brittle. The foil is made from a natural lubricant (graphite). Each strand of yarn has an Inconel wire insertion.

ML2001W is recommended for high temperature, high pressure steam applications, air petroleum products and hot gases associated with valves. Temperatures to +850°F / +455°C. PH range 0 -14, except in strong oxidizers. Temperatures to +1200°F / +650°C in steam. Pressure to 5000 psi steam service.

ML 2001CC CARBON REINFORCED PACKING

ML 2001CC is a Multi-Lok braid with Pure homogenous graphite bonded to a fiberglass carrier for strength and thermal stability. The carbon corners make the packing even tougher and helps minimize packing extrusion. The carbon corners allow the packing to be used on worn equipment where packing extrusion could otherwise be a problem.

ML 2001CC is for rotating shafts where high shaft speeds and thermal conductivity are required. Service Conditions: Shaft speeds to 4000 FPM; temperatures to 850°F/454°C in oxidizing conditions; 1200°F/649°C in steam; pH range 0-14 except strong oxidizers.

SEPCO®

STYLE ML911W

ML-911W is a unique braid of ultra high purity flexible graphite. **ML-911W** eliminates the problems of unscheduled maintenance and loss of gland load because it has no binders that could bake out during service. This valve stem and static application packing handles temperatures up to 850 F in oxidizing atmosphere, and pH range of 0-14. In steam service, **ML-911W** is recommended for temperatures to 1250 F in non-oxidizing atmospheres and pressures up to 5000 psi. It is available in bulk packing, Spiral Pack, die formed rings and pre-cut rings.

- **Ultra high purity flexible graphite**
- **Multi-Lok construction**
- **No binders**
- **Each strand of yarn prior to braiding is covered with a shield of inconel wire.**
- **Available with active or passive corrosion inhibitor**



CHEMICAL SERVICE RECOMMENDATION CHART

Chemical Reagent	Concentration Per Cent	Fluid Temp. up to °F
ACIDS		
Acetic Acid	All	All
Acetic Anhydride	100	All
Arsenic acid	All	All
Boric acid	All	All
Carbonic acid	All	All
Chromium trioxide, aq. Soln.	0-10	200
Citric acid	All	All
Formic acid	All	All
Hydrobromic acid	All	All
Hydrochloric acid	All	All
Hydrofluoric acid	0-48	All
Hydrofluoric acid	48-60	All
Hydrofluoric acid	Over 60	All
Hydrofluosilicic acid	0-20	All
Hydrogen chloride	All	All
Hydrogen sulfide water	All	All
Lactic acid	All	All
Monochloroacetic acid	100	All
Nitric acid	0-10	185
Nitric acid	20-Oct	140
Nitric acid	Over 20	100
Oleic acid	100	All
Oxalic acid	All	All
Phosphoric acid	0-85	All
Sulfur dioxide	All	All
Sulfuric acid	0-70	All
Sulfuric acid	70-85	338
Sulfuric acid	85-90	300
Sulfuric acid	90-93	160
Sulfuric acid	93-95	160
Sulfuric acid	Over 95	Not Rec.
Sulfurous acid	All	All
Tartaric acid	All	All

ALKALIES

Ammonium hydroxide	All	All
Monoethanolamine	All	All
Sodium hydroxide	Jun-67	All
Sodium hydroxide	67-80	All
Sodium hydroxide	100	All

SALT SOLUTIONS

Alum	All	All
Aluminum chloride	All	All
Ammonium bifluoride	All	All
Ammonium bisulfate	All	All

Chemical Reagent	Concentration Per Cent	Fluid Temp. up to °F
Ammonium sulfate	All	All
Ammonium thiccyanate	0-63	All
Arsenic trichloride	100	All
Calcium chlorate	0-10	140
Calcium hypochlorite	All	90
Copper sulfate	All	All
Cupric chloride	All	All
Ferric chloride	All	All
Ferrous chloride	All	All
Ferrous sulfate	All	All
Manganous sulfate	All	All
Nickel chloride	All	All
Nickel sulfate	All	All
Phosphorous trichloride	100	All
Sodium chloride	All	All
Sodium chlorite	0-4	Room
Sodium hypochlorite	0-25	Room
Stannic chloride	All	All
Sulfur monochloride	100	All
Zinc ammonium chloride	All	All
Zinc chloride	All	All
Zinc sulfate	All	All

HALOGENS, AIR, WATER

Air	-	740
Bromine	100	Room
Bromine water	All	Room
Chlorine-dry	100	All
Chlorine dioxide	-	158
Chlorine water	All	Room
Fluorine	100	300
Iodine	100	Room
Steam	-	1200
Water	-	All

HEAT TRANSFER FLUIDS

"Dowtherm" (All Types)	100	All
Petroleum-Oil Based	100	All
"Therminol" (All Types)	100	All
"Ucon" (All Types)	100	All

ORGANIC COMPOUNDS

Acetone	0-100	All
Amyl alcohol	100	All
Aniline	100	All
Aniline hydrochloride	0-60	All
"Aureomycin"	100	All

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CHEMICAL SERVICE RECOMMENDATION CHART

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Chemical Reagent	Concentration Per Cent	Fluid Temp. up to °F
Benezene	100	All
Benezene hexachloride	100	All
Benzyl sulfonic acid	60	All
Butyl alcohol	100	All
Butyl "Cellosolve"	0-100	All
Carbon tetrachloride	100	All
"Cellosolve" solvent	0-100	All
Chloral hydrate	-	All
"Chlorethyl benzene"	100	All
Chloroform	100	All
"Deoxidine"	-	140
Dichloropropionic acid	90-100	338
Diethanolamine	All	All
Dioxane	0-100	All
Ethyl alcohol	0-100	All
Ethyl chloride	All	All
Ethylene chlorohydrin	0-8	All
Ethylene dibromide	100	All
ethylene dichloride	100	All
Ethyl mercaptan water	Saturated	All
fatty acids	All	All
Folic acid	All	All
Refrigerants 11 and 12	100	All
Gasoline	100	All
Glycerine	0-100	All
Isopropyl acetate	100	All
Isopropyl alcohol	0-100	All
Isopropyl ether	100	All
Kerosene	100	All
Mannitol	All	All
Methyl Alcohol	0-100	All
Methyl isobuyyl ketone	100	All
Monochlorbenzene	100	All
Monovinyl acetate	All	All
Octyl alcohol	100	All
Paradichlorbenzene	100	All
Paraldehyde	100	All
Tetrachlorothane, sym.	100	All
Trichlorethylene	100	All
Xylene	All	All

MIXTURES

Acidified starch solutions	All	All
Amino acid plus hydrochloric and sulfuric acids	-	All
Ammonium persulfate plus	25	

Chemical Reagent	Concentration Per Cent	Fluid Temp. up to °F
sulfuric acid	20	Room
Anodizing solutions	All	All
Butyl acrylate plus acrylic acid	All	All
Calcium chloride plus calcium chlorate	30 10	140
Chlorinated ethyl alcohols	All	All
Chrome plating solns.	All	Room
Cresylic acid plus sulfuric acid	-	All
Electropolishing solutions (sulfuric plus phosphoric acids)	All	140
Hydrochloric acid sat. with chlorine	Over 20 All	All
Nickel plating soins. (chloride)	All	All
Nickel plating solns. (sulfate)	All	All
Nitric acid plus hydrofluoric acid	15 5	140
"Parkerizing" solution	All	All
Rayon spin bath	All	All
Sodium hypochlorite plus sodium hydroxide	25	200
Sulfuric acid plus nitric acid	96 0.03	Not Rec.



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GOODYEAR
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