



**Global Headquarters  
Deer Park, TX**

905 W 13th St. Deer Park, TX 77536  
Ph: 281.542.0600 • Fx: 281.542.5552

**European Headquarters  
Slovakia**

Pšurnovická Ulica 1026, 014 01 Bytča, Republic of Slovakia  
Ph: +421.41.5532686 • Fx: +421.41.5532895

**Baton Rouge, LA**

10609 North Dual Dr. Baton Rouge, LA 70814  
Ph: 225.275.8000 • Fx: 225.273.9073

**Corpus Christi, TX**

5819 Leopard Corpus Christi, TX 78408  
Ph: 361.289.1616 • Fx: 361.289.9029

**Port Arthur, TX**

1501 Houston Ave. Port Arthur, TX 77640  
Ph: 409.982.6040 • Fx: 409.982.6068

For more information on our other locations or any of our products,  
please visit [www.leadergt.com](http://www.leadergt.com)

The Global Leader in

# Metallic Gaskets



formerly **JM Clipper**



Leader Global Technologies (formerly JM Clipper) brings you product and market place experience as well as the most cost effective sealing solutions available in the market today. Founded over 100 years ago, Leader GT has led the industry in fluid sealing and gasket manufacturing technology.

As the original designer and developer of the compressed sheet manufacturing equipment, Leader GT has continued to develop leading edge gasket and packing technology. These technologies include the "Patented Dynagraph™ Process", Elastagraph™, Graphite and Corrugated Metal Gasket, CW 2000 High Temperature Packing and many other technology driven fluid sealing products. Leader GT continues to be the fluid sealing technology leader that you can count on.

With our extensive experience in the fluid sealing market, Leader GT is setting new standards of excellence in the manufacture and supply of fluid sealing products. We will work to lower the fluid sealing product "Total Installed Cost", which allows the end-user and their partner distributor to take complete ownership and control of their fluid sealing product spend. Leader GT will help you accomplish this through increased efficiencies, minimized downtime, on-site training and fixed equipment & piping drawing management, all the while continuing to provide "World Class" fluid sealing technologies.

The primary focus of Leader GT is to bring an attitude of excellence to the manufacturing of fluid sealing, fastener and other specialty sealing products. As your dedicated resource, we will manage your day-to-day fluid sealing applications. With our superior manufacturing capabilities, outstanding field technical support and engineering services, we will deliver demonstrable cost savings, and measurable reliability advancements.

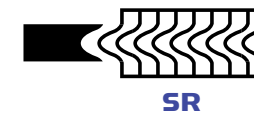
#### Products and Services

- Spiral Wound Gaskets
- Full Line of Stud Bolts and Fastener Products
- Elastagraph™ Molded Graphite and Metal Flange Gaskets
- Dynagraph™ Flexible Graphite Technology
- Dynagraph™ HE (Heat Exchanger) Gaskets
- Graftech GRAFOIL® Products including Sheet and Tape
- LeaderCam™ Camprofile Gaskets
- Double Jacketed Gaskets
- Specialty Manufactured Metallic Gaskets
- Calendared, Filled PTFE Sheet
- Compressed Sheet Gasket Materials
- Specialty Manufactured Cut Gaskets
- Dynagraph™ Mechanical Packing Materials
- Full Line of Standard Mechanical Packing Materials
- On-site Technical Training Programs
- Engineered Gasket Design
- Engineered Bolt Torque Calculations
- ASME Code Bolted Joint Analysis
- Fixed Equipment and Piping Drawing Management
- Warehouse & Zone Stores Materials Management Programs
- Turn Around Materials Management Programs

## Spiral-Wound Gaskets

### Spiral-Wound Gaskets Quality Construction

Available in a full range of styles and materials, our spiral-wound gaskets are manufactured in accordance with ASME B 16.20 for use in all industry flanges, including ASME B 16.5 and ASME B 16.47, Series A&B. Leader GT assures strict adherence to these specifications as routine inspection procedures are applied throughout the manufacturing process. In addition, we maintain traceability of all materials used in our gasket construction to provide material certifications as required. Leader GT's gaskets maintain a ISO 9001 Certification. Choose from the following styles and materials, or let us customize an order to fit your individual need.



### Styles

- **S:** Spiral Winding Only
- **SI:** Spiral Winding with Inner Ring
- **SP:** Spiral Winding with Pass Partitions
- **SR:** Spiral Winding with Outer Ring
- **SRI:** Spiral Winding with Outer Ring and Inner Ring
- **SRP:** Spiral Winding with Outer Ring and Pass Partitions
- **SM, SH:** Spiral Winding for Manholes and Handholes

### Spiral Windings with Outer Rings

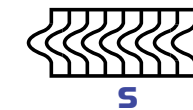
Style SR can be custom made to meet specified dimensions. Both standard and custom SR's are manufactured in the full range of winding metals, filler materials and outer ring alloys.

### SM, SH Manhole and Handhole Gaskets

Designed for standard manhole cover assemblies, as well as boiler handholes and tubecaps, styles SM and SH are manufactured in all materials and fillers. Common shapes include round, oval, obround, pear, diamond, rectangle and square.

### S Spiral Windings Only

Style S consists of winding with no inner or outer ring. Available in the full range of winding metals and filler materials, style S is manufactured to meet most dimensional requirements.

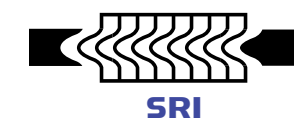


### SRP and SP Spiral-Wound Gaskets with Pass Partitions

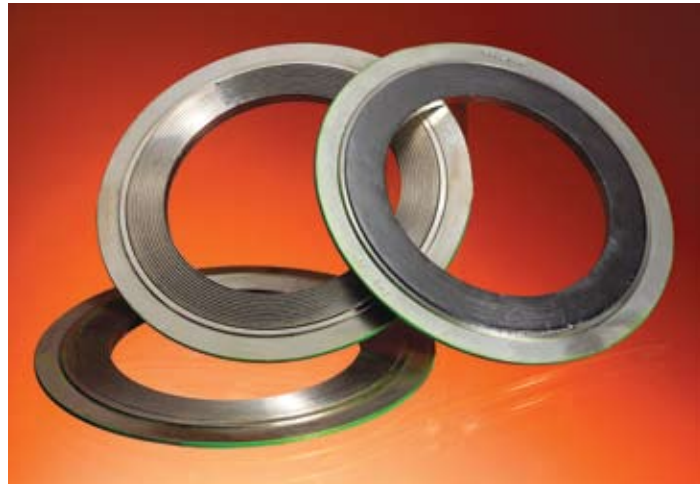
Styles SRP and SP include jacketed ribs in any configuration attached to the inside diameter of the spiral winding to serve as a partition for heat exchanger applications. The rib material generally corresponds to the metal in the winding.

### Inner Ring Gaskets

Styles SRI and SI include a solid metal inner ring generally fabricated from the same metal as the winding. The inner ring is designed to minimize turbulence in process material flow and to prevent inward buckling of the spiral-wound gasket element. The chart to the left gives the standard inside dimensions for Leader GT Style SRI.



## LeaderCam/Camprofile



### Description

LeaderCam camprofile gaskets are offered as a high quality, low emission sealing alternative. LeaderCam is designed for a difficult sealing environment where performance is critical or sealing stresses are low. LeaderCam gaskets consist of a metal core with concentric grooves and normally have sealing layers of either flexible graphite (GRAFOIL®) or PTFE. Metal cores are usually selected based on metallurgy of the piping system and can be re-laminated with new sealing layers to give virtually endless uses. This can be most interesting in applications using expensive alloys. The following presents the two types of profiles available.

### LeaderCam camprofile F

This profile is grooved and has covers from the ID to the OD. Its uses are similar to the spiral wound gasket profile S. It is designed for tongue and groove and male/female flanges.

### LeaderCam camprofile FR

This profile has a section that performs as the guide ring in a SR spiral wound gasket. It is designed for raised and flat faced flanges. The OD normally extends to the surface of the bolts.

### LeaderCam camprofile FL

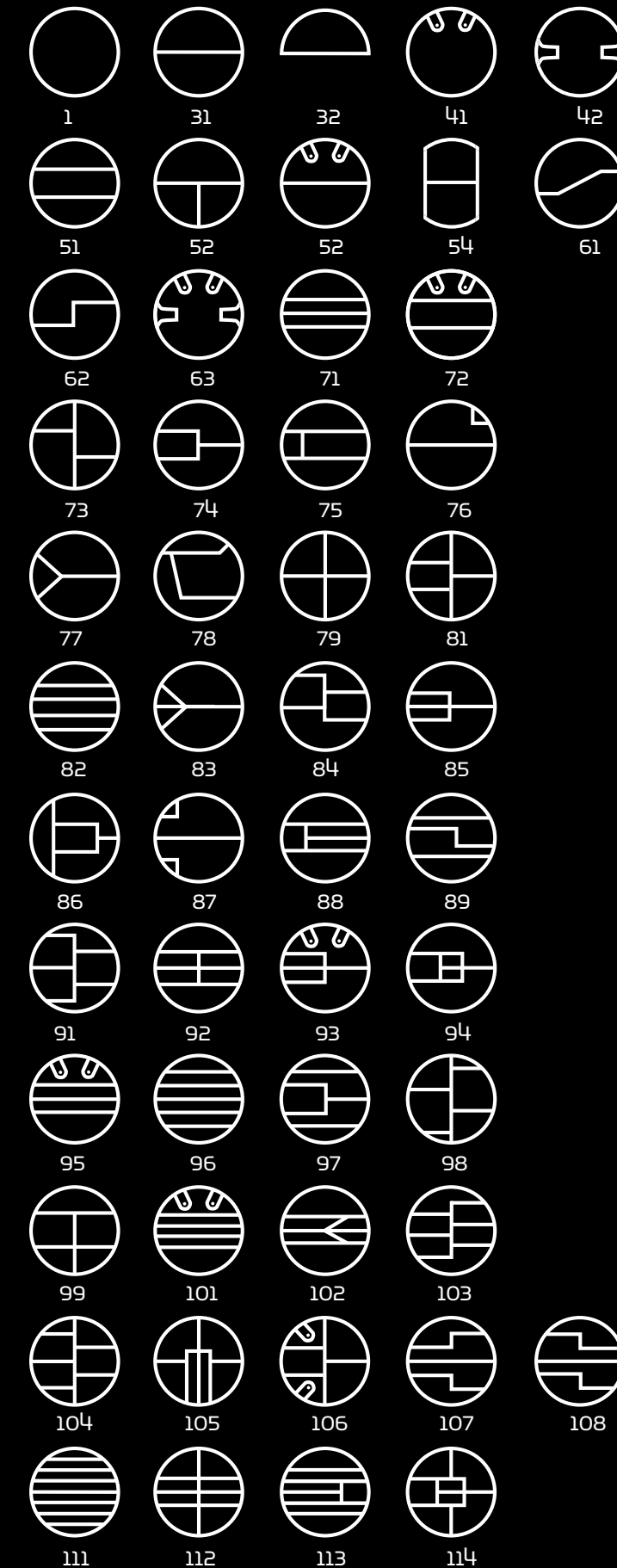
The FL is designed with a floating guide ring to meet end user specifications in standard flanges. The guide rings can be made from a variety of metals for various service conditions.

### Advantages

- **Excellent sealing characteristics at a wide range of seating stresses**
- **Very forgiving of inconsistent bolt torquing or installation error**
- **Applicable to almost all types of flanges regardless of available bolt loads**
- **The working thickness of sealing layers is extremely small reducing fugitive emissions**
- **Low seating stresses reduce flange damage and gasket removal problems**
- **Extreme temperature, pressure and chemical resistance due to variety of materials available**

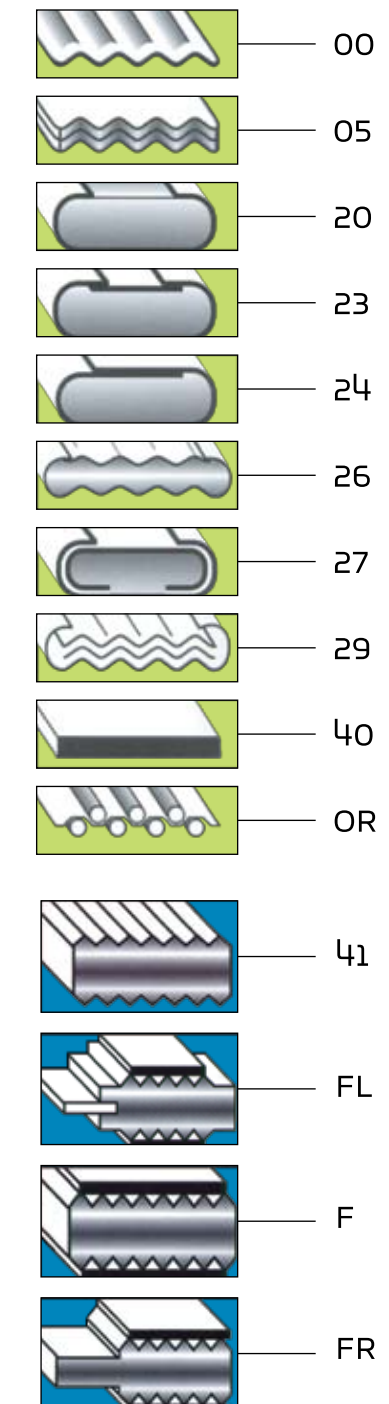
	Types of Covers	
	Graphite	PTFE
<b>Profiles F and FR</b>		
<b>Gasket Factor M</b>	3,75/4,25	3,75/4,25
<b>Seating Stress Y (psi)</b>	2900	2900

## Standard Shapes Chart



## Jacketed, Solid Metal & Camprofile Gaskets

Leader GT manufactures a full line of metal gaskets including spiral wound, double jacketed, corrugated metal, camprofile and plain solid metal gaskets in ring and ribbed configurations. Our metal gaskets are available in the full range of metals and fillers and are individually fabricated to meet customer specifications



## The Dynagraph™ Process



Dynagraph™ Heat Exchanger Gasket

### How it works

The Dynagraph™ process is a patented manufacturing process used to mold flexible graphite to various corrugated metal sub-straight. By using the Dynagraph process, Leader GT is able to provide gaskets capable of outperforming competitor gaskets that are said to be equals to the Elastagraph™ and Dynagraph™ HE gaskets. Because of our patented Dynagraph, there are no equals to the Leader GT corrugated gasket family of products.

### Description

Dynagraph HE and Elastagraph gaskets are made by infusing a seamless layer of flexible graphite at varying densities and thicknesses over a corrugated metallic core. These gaskets utilize a unique corrugated pattern, which increases the depth of the groove and the pitch at the peak of the corrugation. This greatly improves the gasket's sealability over traditional corrugated designs.

### Advantages

- Industries' only corrugated rib pattern
- Increased gasket recovery
- Lower porosity and stress corrosion
- Greater unit load at initial torque
- Increased load retention
- No mylar/polyester film
- Patented

The increased pitch and groove depth increase the Dynagraph HE and Elastagraph gasket's recovery or "spring back" and reduces the surface area of the gasket for greater unit load at initial torque as well as lower minimum seating stress. This results in bolt stability and increased load retention during thermal cycling. The proprietary production process allows the graphite to be applied without the "seam" that is present in other gaskets fabricated from flexible graphite sheets. Elastagraph gaskets are made with a high-density inner ring that increases sealability many times over traditional flexible graphite-covered corrugated metal gaskets. The inner diameter of the Elastagraph is encapsulated by high-density flexible graphite increasing its sealability over traditional designs as well. The superior design of the Elastagraph flange and our Dynagraph HE family of products eliminate leak paths that typically contribute to stress corrosion of the metal insert. The Leader GT process also eliminates the mylar/polyester film adhesive used in traditional gasket designs which contributes to volume and bolt torque loss.

### Applications

Dynagraph HE and Elastagraph gaskets were developed specifically to solve fugitive emission and compliance problems. These gaskets perform well in flanges that experience thermal cycling or limited initial bolt load. Dynagraph HE and Elastagraph gaskets are the most economical way of meeting low emission requirements.

## Elastagraph™ and Dynagraph HE Gaskets

### Dynagraph HE Operating Limits\*

<b>Pressure Ratings</b>	Vacuum to 4500 psi (306 bar) depending on temperature
<b>Maximum Operating Temperature</b>	1200°F (650°C) (Steam) 850°F (450°C) (Air)
<b>PH Range**</b>	0-14
<b>Composition</b>	Flexible graphite infused over a corrugated metal core (316, 304, or carbon steel)

\*Test data available upon request

\*\* Check Leader Global Technologies for oxidizing applications

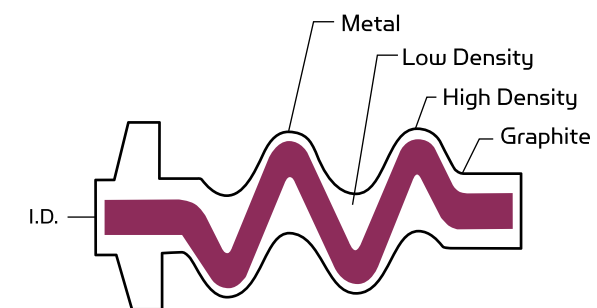
### Elastagraph™ Operating Limits\*

<b>Maximum Operating Temperature</b>	1200°F (650°C) (Steam); 850°F (450°C) (Air) ANSI class 150 and 300 lb. flanges
<b>DIN Sizes</b>	10, 16, 25, 40 bar Contact plant for availability of other class lb. flanges.
<b>PH Range**</b>	0-14

\*Test data available upon request

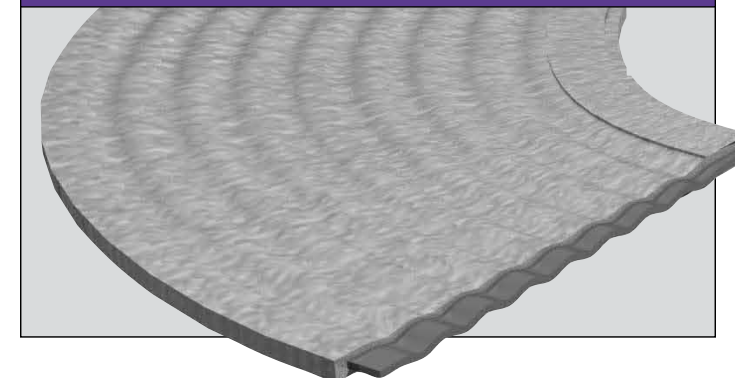
\*\* Check Leader Global Technologies for oxidizing applications

### Cross Section View of Elastagraph™



The flexible graphite completely covers the I.D. of the metal ring providing total corrosion resistance.

### Exaggerated View of Elastagraph™



### Elastagraph™ Material Specifications

#### Temperature Capabilities:

Cryogenic to 850°F (460°C) oxidizing;  
to 1200°F (650°C) steam;

#### Pressure Ratings:

150 and 300 lb. class flanges

### Elastagraph™ Material Considerations

**Sealing Material:** Flexible graphite has been widely recognized as the material of choice in combining excellent thermal stability with corrosion resistance (nuclear grade available).

**Metal Carrier:** 316SS is the standard carrier. The flexible graphite used for the sealing element of all Elastagraph gaskets is GRAFOIL.

## Leader GT GRAFOIL® Sealing Solutions



### Exclusive GRAFOIL® Product Distribution

Leader Global Technologies and GrafTech have formed a partnership allowing for Leader GT to use only GRAFOIL® products for all standard gasket manufacturing

### GRAFOIL® Products set the standard

GRAFOIL flexible graphite was the first fluid sealing material made exclusively from pure, natural graphite flake. Its resistance to heat, fire, corrosion and aggressive chemicals make it the most universally applicable sealing solution on the market today. Like no other, GRAFOIL products provide a tight seal after repeated exposure to the harshest environments.

### The Seal of Assurance

A distinctive sheet material, GRAFOIL flexible graphite combines the high temperature and chemical resistance characteristics of graphite with flexibility, conformability, compactability and resilience. These unique properties are enhanced by a patented manufacturing process and differentiate GRAFOIL products from other materials. Considered one of the safest materials for nearly all sealing applications, GRAFOIL gaskets and packings are fire safe and widely used as a replacement for asbestos.

While maintaining an effective seal, GRAFOIL material exhibits virtually no creep relaxation. As a result, the need for periodic bolt tightening is greatly reduced.

### Sealing Applications

From precision pipe threads to large valves and flanges, GRAFOIL flexible graphite creates a superior seal. GRAFOIL products fill pits, gouges and microscopic irregularities under only moderate bolt loads, leaving no open spaces - or voids for leak path development.

### Single Layer Material

**GTA:** Premium (Nuclear) Grade flexible graphite sheet, non-inhibited typically 99.8% graphite

**GTB:** Inhibited for industrial use

**GTS:** Standard Industrial Grade flexible graphite sheet with an oxidation/corrosion inhibitor and typically 98% carbon content

**GTD:** "Durable" grade flexible graphite is specifically designed for use as the filler material in spiral wound gaskets

**GTE:** "Economy" grade flexible graphite sheet, noninhibited and typically 98% carbon content

**GTX:** "LowOx" flexible graphite sheet, highly oxidation-resistant material.

### Reinforced Laminates

**GHE:** 316/316L stainless steel tanged insert (0.004" thick), mechanically bonded to GTS facing

**GHR:** Flat 316/316L stainless steel insert (0.002" thick), adhesively bonded to GTS facing

**GRAFKOTE®:** Laminate with a single- or double-sided thin (0.0005" thick) polymer coated surface

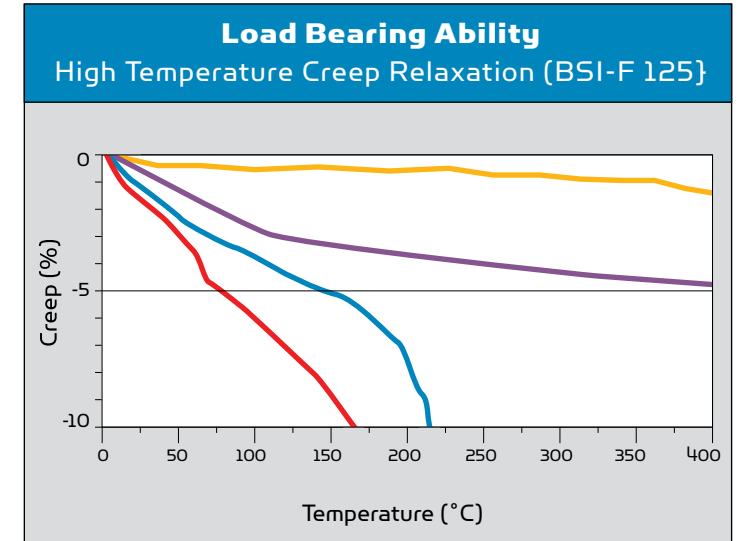
### GRAFOIL® Sealing Solutions are:

- **Chemically compatible:** GRAFOIL® flexible graphite is inert to most chemicals and gases.
- **Resilient and compressible:** GRAFOIL products provide leak-tight performance and recover after compression, protecting systems from load loss caused by bolt stretch.
- **Naturally lubricious:** GRAFOIL flexible graphite is ideal for gasket and seal applications where surface movement exists, maintaining the utmost in performance and sealability.
- **Thermally stable:** GRAFOIL flexible graphite will not cold flow or creep under normal gasket loads and no embrittlement occurs.
- **Easily cut:** Using conventional tools, GRAFOIL flexible graphite can be cut or molded into most required configurations.

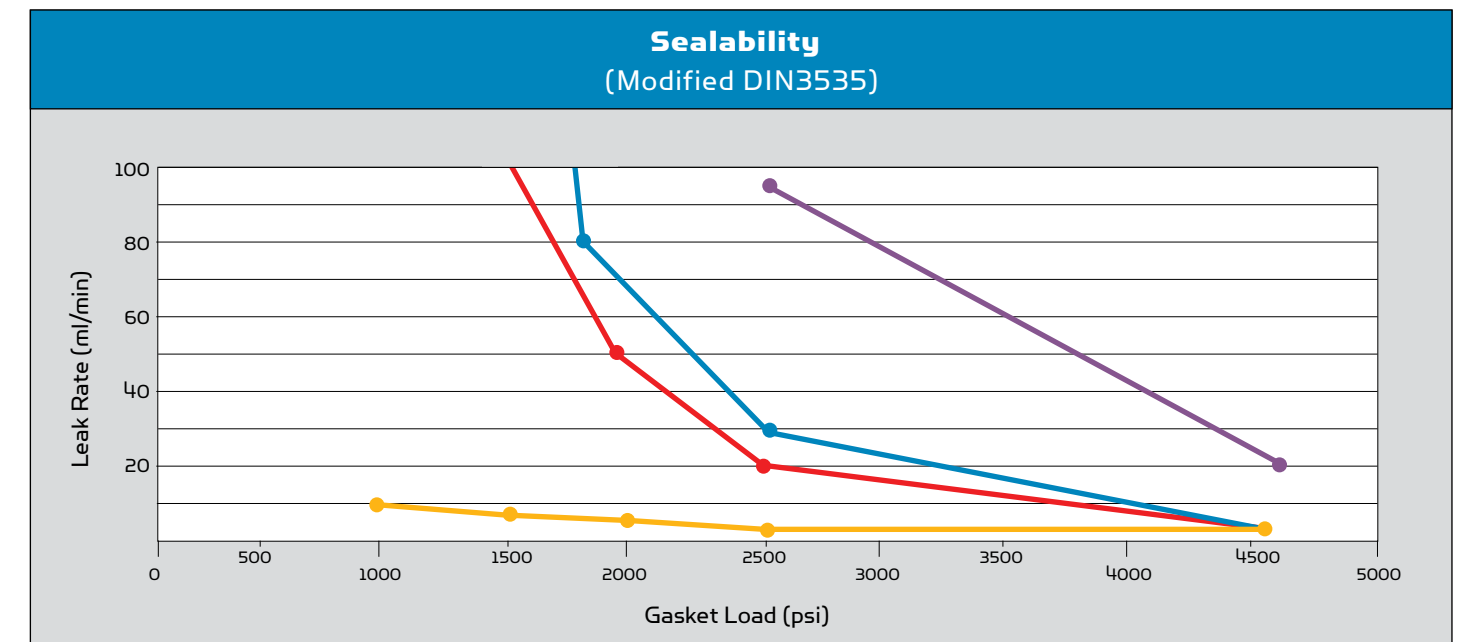
### Other GRAFOIL products

**GTS®:** High-purity paste made from high purity flake and a nuclear quality petroleum-based carrier

**UCAR®-323:** Woven continuous PTFE with fiberglass reinforcement



GRAFOIL GTB	Compressed Nonasbestos NBR/ Aramid fibers	Compressed Nonasbestos NBR/ Synthetic fibers	Good quality asbestos
-------------	---	--	-----------------------



## Color Coding

All Leader Global Technologies Products are color coded per ASME B 16.20 as follows:

Leaderfite		Pink Stripe
Flexible Graphite		Grey Stripe
PTFE		White Stripe
Ceramic		Light Green Stripe
Alloy 20		Black
Carbon Steel		Silver
Hastelloy B		Brown
Hastelloy C		Beige
Inconel		Gold
Monel		Orange
Nickel		Red
Titanium		Purple
304SS		Yellow
316LSS		Green
321SS		Turquoise
347SS		Blue

## Quality Control

Each employee at Leader Global Technologies is totally dedicated to quality. Our Quality Control Department can supply MTR's on all orders. Upon written request, a copy of our Quality Assurance Manual will be submitted for your review.

- **ISO 9001: 2001 registered**
- **Traceability: By Heat Code and Lot Number**
- **Testing: ASTM, NACE, Hardness**
- **P.M.I: Positive Material Identification available on request.**

## Inventory

Our warehouse facilities contain a vast array of raw materials and finished goods ready and waiting to meet your requirements. Our inventory covers the full array of standard gaskets in spiral wounds, Elastagraph, sheet and many other materials we have available.



Spiral Wound Gaskets



## Limited Warranty

LEADER GLOBAL TECHNOLOGIES WARRANTS THAT ITS PRODUCTS ARE MANUFACTURED IN ACCORDANCE WITH ITS APPLICABLE MATERIAL SPECIFICATIONS AND ARE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP USING LEADER GLOBAL TECHNOLOGIES' SPECIFICATIONS AS A STANDARD. ONLY PRODUCTS WHICH ARE INSTALLED AND USED IN ACCORDANCE WITH APPLICABLE LEADER GLOBAL TECHNOLOGIES INSTRUCTIONS AND SPECIFICATIONS ARE IN ANY WAY WARRANTED BY LEADER GLOBAL TECHNOLOGIES. THIS WARRANTY IS APPLICABLE ONLY TO CLAIMS MADE IN WRITING AND REVIEWED BY LEADER GLOBAL TECHNOLOGIES WITHIN 30 DAYS AFTER THE DEFECT WAS DISCOVERED OR SHOULD HAVE BEEN DISCOVERED AND WITHIN ONE YEAR AFTER THE DATE OF SHIPMENT OF THE PRODUCT BY LEADER GLOBAL TECHNOLOGIES. ALL OTHER CLAIMS ARE WAIVED. IF A CLAIM IS MADE, YOU MUST ALLOW REASONABLE INVESTIGATION OF THE PRODUCT YOU CLAIM IS DEFECTIVE AND YOU MUST SUPPLY SAMPLES THAT ADEQUATELY DEMONSTRATE THE PROBLEM YOU CLAIM FOR TESTING BY LEADER GLOBAL TECHNOLOGIES.

LEADER GLOBAL TECHNOLOGIES MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, IN FACT OR IN LAW, INCLUDING WITHOUT LIMITATION, LENGTH OF SERVICE LIFE, MERCHANTABILITY, OR THE FITNESS FOR A PARTICULAR PURPOSE, OTHER THAN THE LIMITED WARRANTY SET FORTH ABOVE. THE LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY AS A MODIFIED OR AMENDED ONLY BY A WRITTEN INSTRUMENT SIGNED BY A DULY AUTHORIZED REPRESENTATIVE OF LEADER GLOBAL TECHNOLOGIES. WITHOUT AN EXPRESS WRITTEN AUTHORIZATION FROM LEADER GLOBAL TECHNOLOGIES, NO RETAILER OR DISTRIBUTOR OF LEADER GLOBAL TECHNOLOGIES PRODUCTS HAS THE AUTHORITY TO MODIFY OR AMEND THE LIMITED WARRANTY.