



World Class Gasket Manufacturer

the legacy in sealing technology



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LEADER GASKET TECHNOLOGIES: **World Class Gasket Manufacturer**

Leader Gasket Technologies is a manufacturer of metallic, semi-metallic and soft gasket products. Originally founded in 1989 in Baton Rouge - Louisiana, focussed on Spiral Wound technology and Specialty Equipment gaskets such as Corrugated Metal gaskets, Leader has evolved into a global manufacturer of gaskets and gasket products for various industries using the latest technologies.

Leading the industry

Today, we are the leading global provider for numerous industries, ranging from petrochemical multinationals and the automotive industry to small and medium enterprises all over the world. From our offices in Deer Park - Texas, Baton Rouge - Louisiana and Bytča - Slovakia we offer gasket solutions for every business, from mass production of standards to very specific custom-made.

Innovations

Our innovations include the patented Elastagraph technology, reducing emissions in the environment, API RTJ Rings, Leader Spiral Wound gaskets meeting the highest specs set out by the Petrochemical Industry, Kammprofiles for both pipe flanges and equipment installations and a full range of soft sheet materials. Additionally, we manufacture an array of semi metallic specialty gaskets for our OEM customers. The most recent addition was our internally manufactured Biax Process (filled and Biaxially oriented PTFE) marketed under our Clipperlon brand.

Sustainable Gasket Solutions

There are many parameters which impact the performance of a gasket. Identifying these factors and ensuring they are all optimized to provide you with a safe and sustainable flange connection is at the core of our business. This includes advanced gasket selection tools, training on-site and flange management programs for maintenance, such as Total Flange Care and Flange Integrity Management.



Technical testing

Leader has its own test that meets the current standard. This allows Leader to test gaskets in-house according to the current state of technology in accordance with current test procedures (for example, standard leakage tests or pressure strength, relaxation and crushing tests) and also to distribute the required characteristic values in accordance with EN 13555. In addition to the above-mentioned tests, the sealing behaviour, as required in the VDI 2440/2200, can be determined according to previous Temperature storage.

Engineering Solutions

Leader Gasket Technologies engineers and product specialists have the know-how to provide recommendations and solutions for all your gasket needs. The engineered staff is both in-house and field rep. experienced in close cooperation all partners.

Investing in the future

Leader Gasket technologies invests in a sustainable future by developing new types of flange connections which further reduce emissions and increase safety. Our engineering team uses its own state of the art AMTEC test equipment, FEA analytical programs and 3d drawing programs to test and develop these new designs.



Capabilities



Engineering Team

The Leader Gasket Technologies engineers and product specialists cooperate intensively with maintenance specialists and mechanical engineers in the industry.

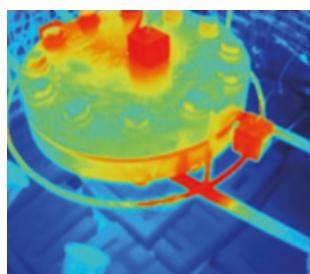
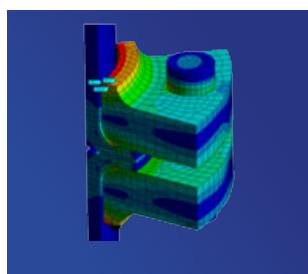
Our market know-how allows us to develop new customized solutions and techniques creating cost savings for our customers. Our Leader Gasket Technologies team is ready to provide technical expertise and support to solve existing or potential problems. We participate on project preparation and finalize complete gasket solutions.

Our special team of skilled and experienced experts provide assistance on the selection and use of Leader Gasket Technologies products being equipped with a modern laboratory.

Our engineering teams in both US and Europe are available for your request even on daily live chat via www.leadergt.com

OUR ENGINEERS ARE QUALIFIED TO HELP YOU WITH:

- ↳ Emission reduction programs
- ↳ Installation procedures
- ↳ Material & design selection
- ↳ Bolt load calculation & recommendations EN1591-1
- ↳ Bolting procedures
- ↳ Flange machining recommendations
- ↳ On-site training (Flange Integrity Management)
- ↳ Product R&D and in-house testing
- ↳ Review of corporate piping standards to implement product consolidation to reduce inventory cost
- ↳ Co-engineering of customized parts and gasket solutions
- ↳ Safety consulting and procedures



Materials for Manufacturing

Leader Gasket Technologies carries a plethora of raw materials from standard 304 and 316L materials to Titanium, Alloy 20, Monel, Hasteloy, and other exotics. Our material specifications, on-site vendor and incoming goods inspections assure our end customers receiving only the highest quality materials on each and every order.



Turnaround Support

Leader Gasket Technologies offers complete support for turnarounds, plant shutdowns, and production stops for industrial companies. This involves the replacement of gaskets for chemical plants, oil refineries, power generation companies and other industrial sectors. Whether it is for emergency repairs or planned shutdowns, Leader has the management and staff in-house to carry out these stops including all logistic services needed such as on site container services. Together with its allied distributor partners Leader can offer a full service concept of supply; service and on site support.





Quality

Product quality and reliability are the fundamental elements for our success as a trusted manufacturer to industry. We go above and beyond industry standards to ensure that our products are manufactured with high quality, high performance materials and consistent, repeatable and documented procedures. All special alloys are 100% PMI tested and documented to ensure products are supplied as specified. Detailed material test reports, PMI travelers, independent testing results and other quality documentation can be provided upon request.

Quality & Safety statement

Quality, Safety and Sustainability are of high concern for Leader Gasket Technologies; both towards our associates, customers and communities we live in.

Within the company and towards the market a clear vision on Quality and Safety has been integrated including Principles.

Health, safety and environmental commitments are described and implemented throughout the organization. Special teams are in place to consciously strive for improvement committed by the management.

6 Golden Rules of Safety are implemented throughout the entire organisation

Testing and development laboratory

- AMTEC testing equipment
- Emission reduction tests and development
- Product/Production innovation
- Testing according to Int. Standards
- DIN 28090, EN 13555 or ASTM
- Customer specific tests and projects
- Bolting and torque calculations according EN 1591

Leader Gasket Technologies traceability

Traceability is the ability to verify the history, location, or application of an item by means of documented recorded identification. Material traceability is important to the aerospace, nuclear, and process industry because they frequently make use of high strength materials that look identical to commercial low strength versions.

Leader Gasket Technologies guarantees full traceability using a heat code, job number and batch code on all manufactured products. This allows easy identification of raw materials and production settings. In case of special customer request we can provide customized product traceability, documentation and certification.



Total Flange Care

There are many parameters which impact the performance of a gasket. Identifying these factors and ensuring they are all optimized to provide you with a safe and sustainable flange connection is at the core of our business. At Leader Gasket Technologies we call this approach Total Flange Care.

Innovation

The development of gaskets is a process that is always in motion. At Leader Gasket Technologies we operate in the forefront of this field. Our engineering team utilizes the latest techniques to develop innovative gaskets, specifically designed to perform optimally in increasingly complicated processes in various industries.

Gasket failure?

A leaking flange connection is often called a "gasket failure". Yet, in many cases simply replacing the gasket doesn't solve the problem. This is because there are many factors which have a direct and indirect impact on the performance of a flange connection. The gasket itself is a very important part of the equation, but it can only perform as intended when it is properly installed and maintained.

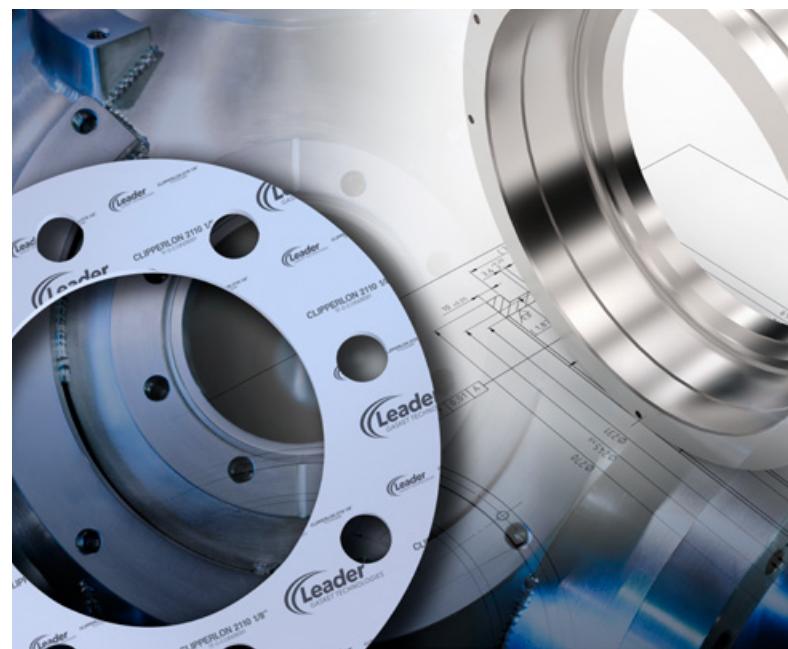
Flange Integrity management

This is why we call a leaking flange connection an "integrity problem". Our approach to solving this problem is Flange Integrity Management. This is where we systematically identify all the contributing factors that cause the leak and establish the right approach to come up with a lasting solution.

Four parameters

Safety and sustainability are the highest concern in industrial gasketing. Creating and maintaining a leak free flange connections is of the utmost importance. At Leader Gasket technology we always look at the combination of the following four parameters:

- Gasket
 - Flanges and bolts
 - Assembly
 - Operating conditions



MEETING THE HIGHEST STANDARD!

- ↳ Training mechanics / engineers EN1591-4
 - ↳ Advising gasket selection
 - ↳ Inspection and recommendation flange parameters
 - ↳ Gasket testing
 - ↳ Calculation bolt force, tightness and emission
 - ↳ Flange management programs
 - ↳ LDAR

Sustainable Gasket Solutions



Leaks can cause the emission of gases and vapors in pressurized industrial equipment. Losing raw materials is not only problematic because of costs. This loss also creates a multitude of risks and dangers. In the long term, certain chemicals may pose a risk to the health of workers. A leak of flammable substances increases the risk of fire and explosion. In addition, the emission of chemical substances is harmful to the environment.

Emission reduction

Gaskets and pipe connections are the greatest risk to potential leakage points and emission. In large industrial installations there are many gaskets present and when these gaskets are not reliable, total emission can soar. Leader Gasket Technologies is specialized in gaskets that reduce fugitive emissions. Through education about the proper gasket selection, proper calculations and installation advice, Leader can help any industry with emission reduction.

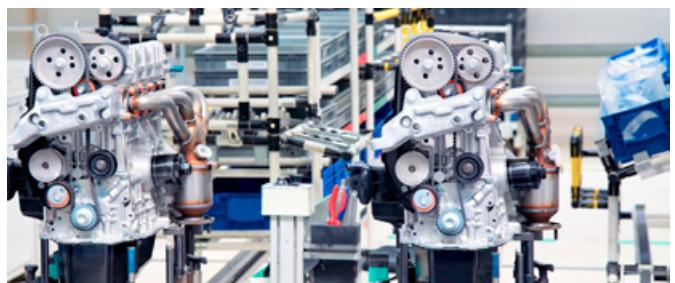
LEAKING IS DANGEROUS AND COSTLY!

- ↳ Unsafe situations
- ↳ Emission
- ↳ Environmental impact
- ↳ Loss of production
- ↳ Loss of product
- ↳ Cleaning cost
- ↳ Extra maintenance

Industries



Chemicals



OEM industries



Energy



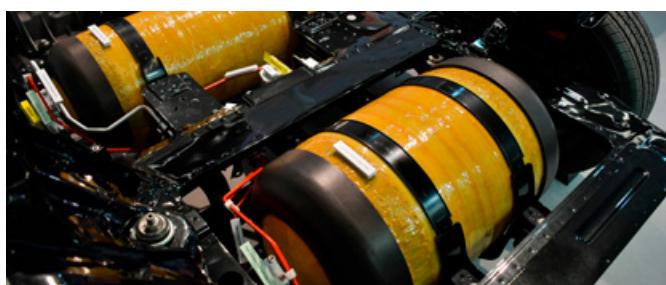
Oil & Gas



Food & Pharmaceuticals



Primary industries



Fuel cell industries



Refineries



Maritime sector

Certificates & Tests



Summary of the tests and certificates for Leader Gasket Technologies products.

Spiral Wound Gaskets -SRI

- TA-Luft
- EN13555
- BAM
- Hot Blow Out test
- Fire Safe API 6FB

Kammprofiles

- TA-Luft
- EN13555
- BAM
- Fire Safe API 6FB

Elastagraph Gaskets

- TA-Luft
- EN13555
- BAM
- Hot Blow Out test
- Fire Safe API 6FB
- DVGW

Elastagraph Gaskets with inner eyelet

- TA-Luft

Corrugated Gaskets CG

- EN13555

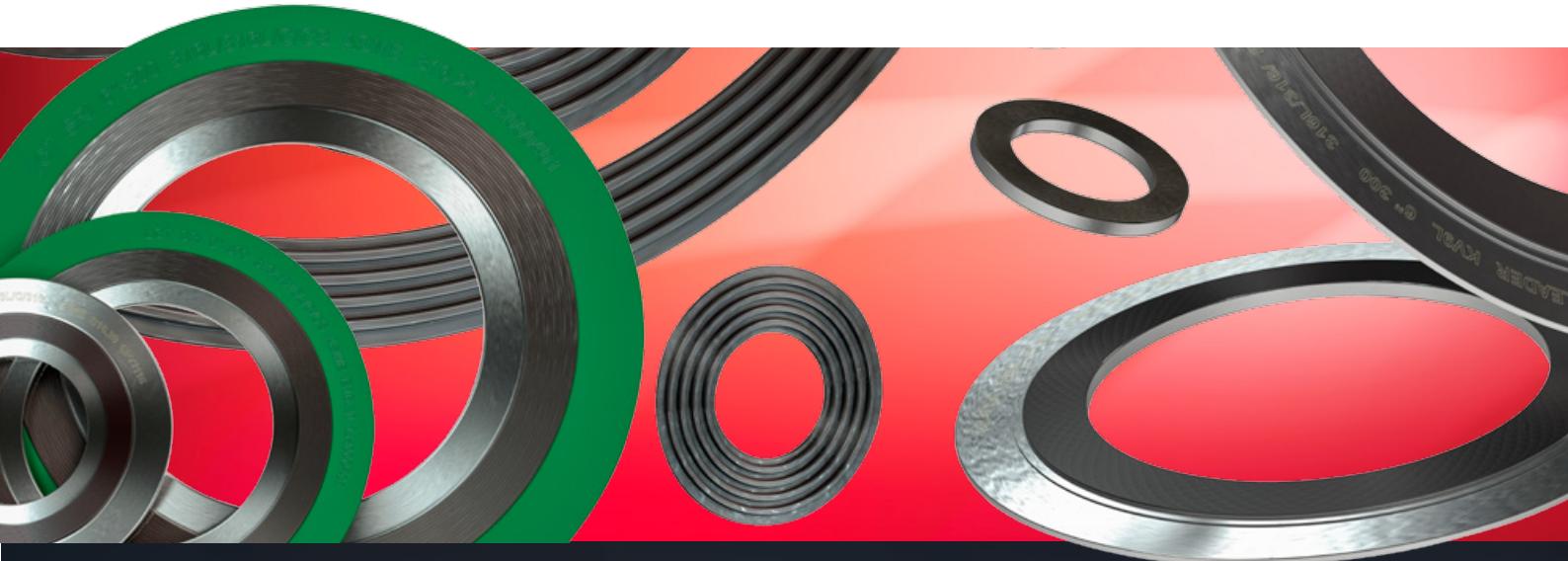
Filled PTFE - Clipperlon 2100, 2110, 2120, 2130

- TA-Luft
- Blow Out test
- FDA
- EC1935/EU10/2011

For a copy of the original and accurate certificate we refer to our website: www.leadergt.com

Determining the characteristic values of gasket

- Characteristic values according to EN 13555
- Qsmax and Qsmin (EN 13555)
- PQR value (EN 13555)
- EG module (EN 13555)
- DIN 28090, DIN 28091
- DIN 3535
- DIN 52913
- TA-Luft VD2440



SEMI - METALLIC GASKETS

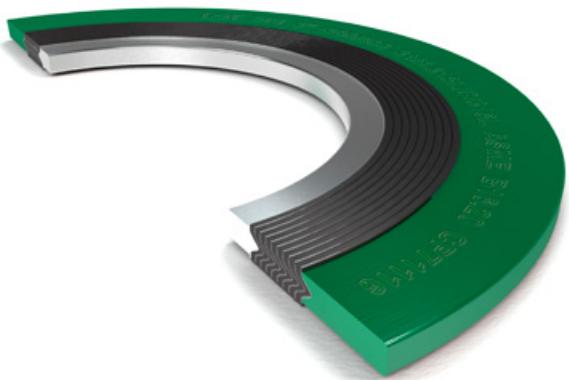
Leader Spiral Wound Gaskets

HIGH INTEGRITY SWG GASKETS

The spiral wound gasket (SWG) is without any doubt one of the most widely used metal/soft-material gaskets. The design is based on an existing concept which has proven its excellent properties over many years.

The basic principle of the spiral wound gasket consists of alternating layers of V-shaped metal coils and soft, non-metallic filling material. The first and the last coils consist only of metal in order to reinforce the spiral on the inner and outer diameters.

This 'sandwich' construction, in conjunction with the special V-shape of the spiral metal band and the properties of the filling material make the spiral wound gasket ideal for applications with high Temperature differences and associated voltage differences, joint relaxation and flange twists.



Applications

- Piping (DIN/ANSI)
- TA-Luft
- In the event of Temperature fluctuations
- Tongue and groove connections
- Heat exchangers
- Equipment
- Steam boilers
- High pressures

Properties

Outer ring

- Centring of the gasket
- Prevents blow-out
- Increase in mechanical strength
- Labelling
- Material: steel, stainless steel, non-ferrous metals

Inner ring

- Prevention of turbulence
- Strengthening of the gasket
- Protection against contamination of the medium
- Indispensable for PTFE filler
- Required for vacuum

Spirals

- 3.2 mm/4.5 mm/6.4 mm thickness
- Filler: Graphite, PTFE, Mica
- Metal band: in various grades
- Actual sealing function
- Forms: round or oval

Pressure

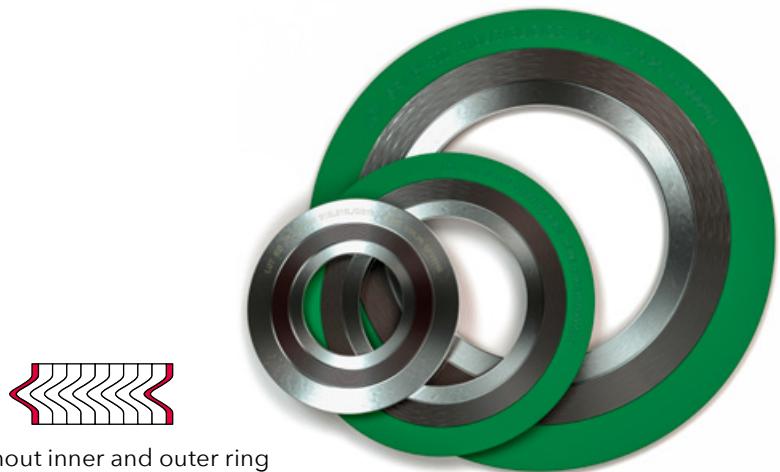
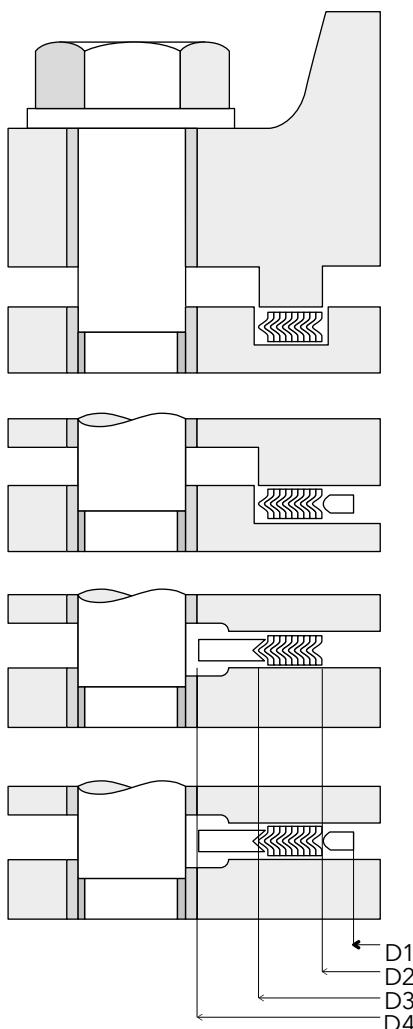
- Max. 200 bar, depending on the installation and surface pressure

Approvals

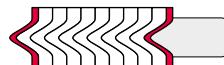


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STYLES OF LEADER SPIRAL WOUND GASKETS



Style S without inner and outer ring



Style SI with inner ring



Style SR with outer ring



Style SRI with inner and outer ring

MATERIALS - OVERVIEW*				
MATERIAL	DIN / EN	TRADE NAME	AISI / UNS	TEMPERATURE °C
1.4301	X5CrNi18-10	Stainless steel	304 (S30400)	-200 to +550
1.4404	X2CrNiMo17-12-2	Stainless steel	316L (S31603)	-200 to +550
1.4571	X6CrNiMoTi17-12-2	Stainless steel	316Ti (S31635)	-270 to +550
1.4541	X6CrNiTi18-10	Stainless steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General structural steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy 800 (Alloy 800)	ASTMB409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy B2 (Alloy B2)	ASTMB333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy C276 (Alloy C276)	ASTMB575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel 600 (Alloy 600)	ASTMB168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel 400 (Alloy 400)	ASTMB127 (N04400)	-60 to +425
3.7035	Ti 2	Titanium Gr. 2	ASTMB265 (R50400)	-40 to +300
Graphite ≥98%			-	-200 to +450**
Graphite ≥99.85%			-	-200 to +450**
PTFE			-	-240 to +250
MICA			-	0 to +800

Other materials available on request

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** (to +550 only after consultation)

LeaderKAM

KAMM PROFILE GASKETS

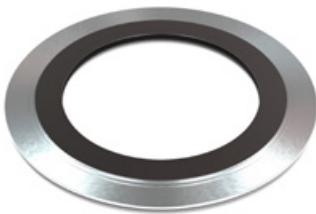
The use of kammprofile gaskets has increased enormously in recent decades – not only for the sealing of standard flanges, but also of equipment components, such as heat exchangers and containers.

LeaderKAM kammprofile gaskets with soft material layers are characterised on the one hand by a very low minimum surface pressure which is determined by the material of the support. On the other hand, the maximum permissible surface pressure is very high as this is determined by the value of the metal carrier material.

This gives the grooved gaskets with layers a very wide range of application. They are therefore almost universally applicable. The bolt force to be applied when using grooved gaskets is determined by the characteristic data of the screws.

Applications

- Flanged pipes (DIN/ANSI)
- TA-Luft
- Grooved flanges
- Heat exchanger
- Equipment
- Boilers
- High pressure



Properties

Metal Core

- Thickness: 1,5-10 mm
- Stainless steel/steel in various grades
- Depending on the thickness of the layers, the carrier material contains the precisely defined comb-like grooves

Soft material layer

- | | |
|--------------|------------------|
| ▪ Thickness: | 0.5 mm or 1 mm |
| ▪ Graphite | (-200 to +450°C) |
| ▪ PTFE | (-240 to +250°C) |
| ▪ Mica | (0 to +800°C) |
| ▪ Silver | (-270 to +750°C) |

Pressure

- Max. 200 bar, depending on the installation and surface pressure

Types (forms)

- Round, oval, rectangular
- With seam gaps according to drawing

Total thickness

- Standard: 4 or 5 mm

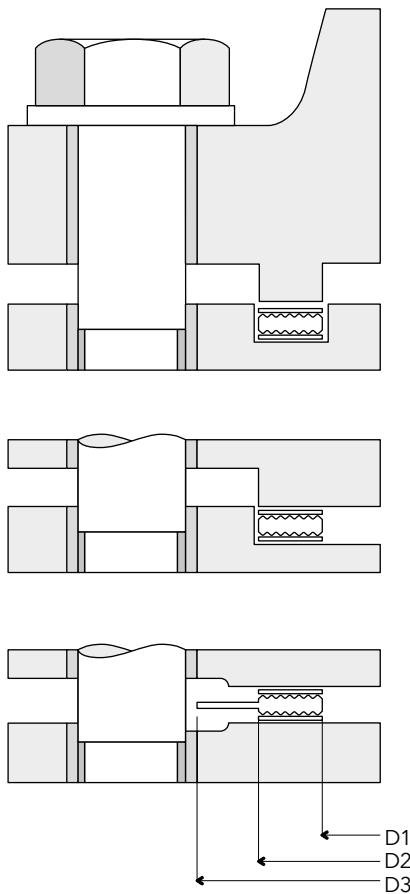
Approvals



SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
KV, KV9, KB9- Steel / Stainless steel carrier			
Graphite Facing	20	20	500
	300	20	400
PTFE Facing	20	25	300
	200	25	120

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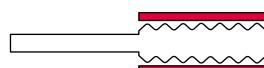
STYLES OF LEADERKAM KAMM PROFILE GASKET



Style KV without outer guide ring



Style KB convex without outer guide ring



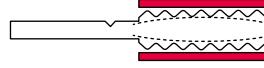
Style KV9 with fixed outer guide ring



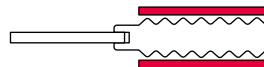
Style KB9 convex with fixed outer guide ring



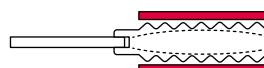
Style KV9S with fixed outer guide ring and predetermined breaking point



Style KB9S convex with turned outer guide ring and predetermined breaking point



Style KV9L with loose outer guide ring



Style KB9L convex with loose outer guide ring

MATERIALS - OVERVIEW*				
MATERIAL	DIN / EN	TRADENAME	AISI / UNS	TEMPERATURE °C
1.4301	X5CrNi18-10	Stainless Steel	304 (S30400)	-200 to +550
1.4404	X2CrNiMo17-12-2	Stainless Steel	316L (S31603)	-200 to +550
1.4571	X6CrNiMoTi17-12-2	Stainless Steel	316Ti (S31635)	-270 to +550
1.4541	X6CrNiTi18-10	Stainless Steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General Structural Steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy 800 (Alloy 800)	ASTMB409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy B2 (Alloy B2)	ASTMB333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy C276 (Alloy C276)	ASTMB575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel 600 (Alloy 600)	ASTMB168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel 400 (Alloy 400)	ASTMB127 (N04400)	-60 to +425
3.7035	Ti 2	Titanium Gr. 2	ASTMB265 (R50400)	-40 to +300
Graphite ≥98%		-	-	-200 to +450**
Graphite ≥99.85%		-	-	-200 to +450**
PTFE		-	-	-240 to +250
ePTFE		-	-	-240 to +250
Silver		-	-	-270 to +750
Mica		-	-	0 to +800

Other materials available on request

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** (to +550 only after consultation)

Leader Elastagraph™

EMISSION REDUCTION GASKETS

Elastograph™ gaskets feature a corrugated core made of stainless steel in the carrier assembly, which is seamlessly coated with flexible Graphite of different densities and thicknesses. This version provides much better seal characteristics in comparison to standard corrugated ring gaskets.

Elastograph™'s corrugated form ensures a constant springback against the flange surfaces. The reduced effective seal area achieved benefits the bolt force when initial torque is applied, as the entire ring edge is not immediately compressed.

In contrast to conventional Graphite gaskets, the method of production of Elastograph™ creates a type of seal without a joint. The corrugate core is completely coated with Graphite. An additional Graphite area with a higher density is applied to the internal part of Elastograph™ on both sides. This creates a line pressure which significantly increases the sealing behaviour in comparison to classical gaskets. The core is also made of stainless steel and can withstand potential damage.

Applications

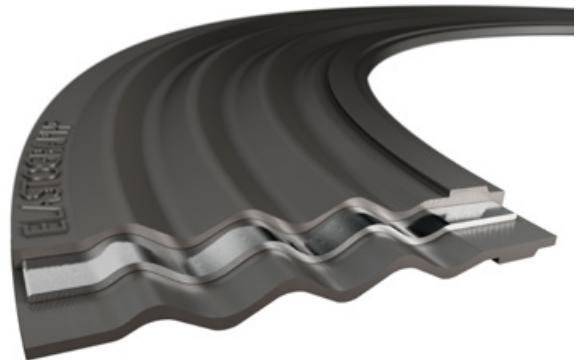
- Flanged Pipes (DIN/ANSI)
- TA-Luft
- Compensates for flange irregularities
- Emission reduction

Approvals



SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
Elastograph™			
Graphite	20	20	250
Facing	300	20	150

Latest version of productdatasheet available on www.leadergt.com



Properties

Metal Core

- Thickness: 0.6 mm
- Standard 1.4404 (316L)
- Other materials possible

Soft material layer

- Thickness: 0,5 mm or 1 mm
- Graphite: (-200 to +450°C)

Pressure

- Max. 64 bar, depending on the installation and surface pressure

Types

- Round
- Only for standard flanges IBC or RF
- Standard dimension up to DN 600 or 24 inches
- Special dimension as Elastograph™ SG

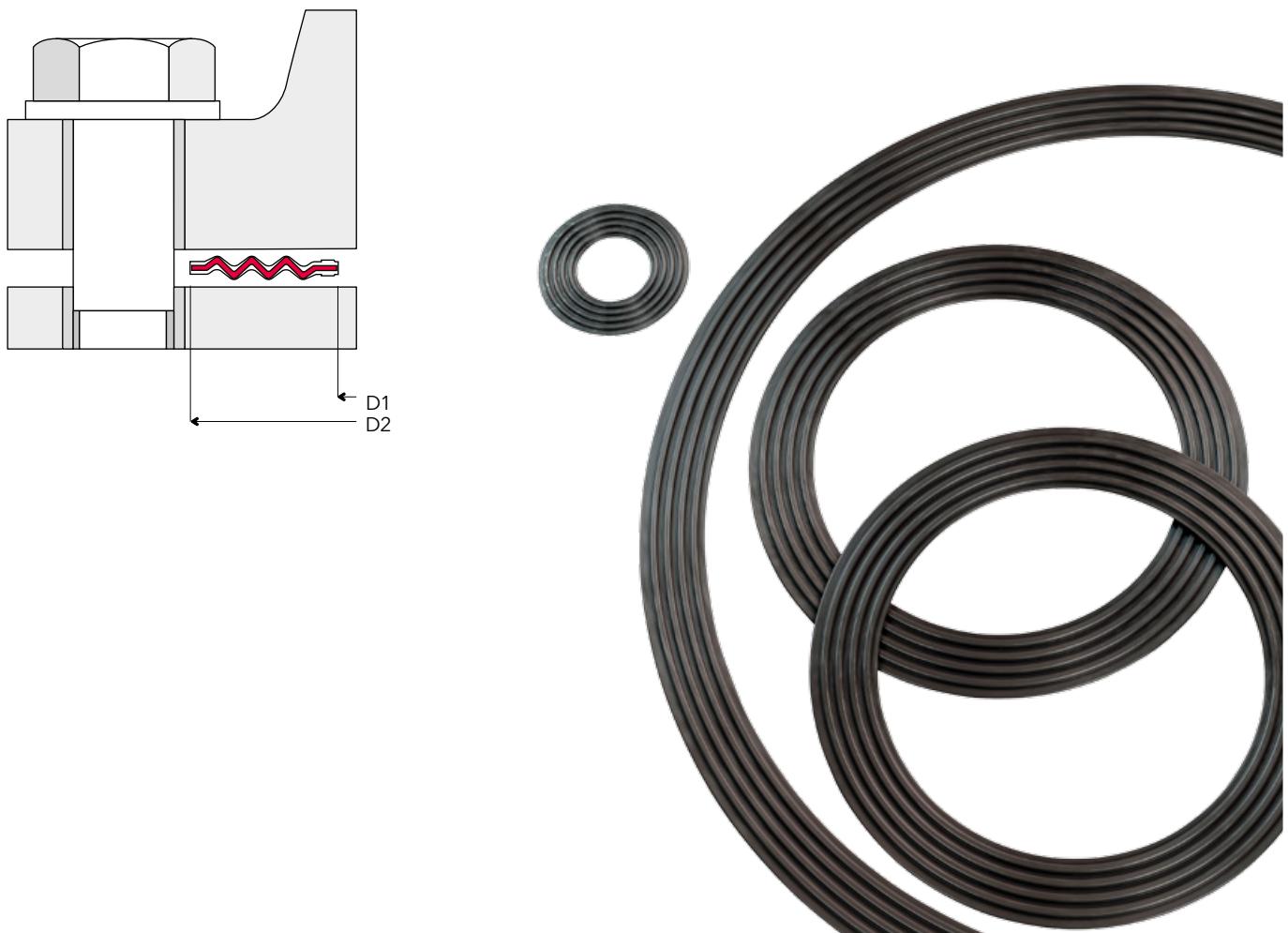
Special Features

- High compressibility
- Good sealing behaviour at low bolt forces
- Good flexibility in uneven flange surfaces
- Good flexibility even on poor surfaces
- High fault tolerance in assembly
- Very good springback function
- Good mechanical properties with Temperature fluctuations
- Very good stability (PQR)

Total thickness

- Standard: 1.6 mm or 3.2 mm

STYLE OF LEADER ELASTAGRAPH™ GASKET



MATERIALS - OVERVIEW*				
MATERIAL	DIN / EN	TRADENAME	AISI / UNS	TEMPERATURE °C
1.4301	X5CrNi18-10	Stainless Steel	304 (S30400)	-200 to +550
1.4404	X2CrNiMo17-12-2	Stainless Steel	316L (S31603)	-200 to +550
1.4571	X6CrNiMoTi17-12-2	Stainless Steel	316Ti (S31635)	-270 to +550
1.4541	X6CrNiTi18-10	Stainless Steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General Structural Steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy 800 (Alloy 800)	ASTMB409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy B2 (Alloy B2)	ASTMB333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy C276 (Alloy C276)	ASTMB575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel 600 (Alloy 600)	ASTMB168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel 400 (Alloy 400)	ASTMB127 (N04400)	-60 to +425
3.7035	Ti 2	Titan Gr. 2	ASTMB265 (R50400)	-40 to +300
Graphite ≥98%		-	-	-200 to +450**
Graphite ≥99.85%		-	-	-200 to +450**

Other materials available on request

* the information listed here is not claimed to be exhaustive and serves only as a guide; despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided
** (to +550 only after consultation)

Leader Elastagraph™ SG

EMISSION REDUCTION GASKETS

Elastograph™ SG consists of a corrugated metal carrier which is coated with Graphite on both sides.

The corrugated form of Elastograph™ SG guarantees a very good flexibility against the flange surfaces. Applying the Graphite layer to the carrier's grooves in the manufacturing process improves the bolt force of the initial torque, as the entire ring edge is not immediately compressed.

This creates a line pressure which significantly increases the sealing behaviour in comparison to classical gaskets. The core is also made of stainless steel and can withstand potential damage.



Applications

- Pipes (DIN / ANSI / Special Dimensions)
- TA-Luft
- Heat exchanger
- Equipment
- Boilers
- Compensates for flange irregularities

Approvals



SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
Elastograph™-SG			
Graphite	20	20	250
Facing	300	20	150

Latest version of productdatasheet available on www.leadergt.com

Properties

Metal Core

- Thickness: 0.6 mm
- Standard 1.4404 (316L)
- Other materials possible

Soft material layer

- Thickness: 0.5 mm, 0.8 mm, 1 mm
- Graphite: (-200 to +450°C)

Pressure

- Max. 64 bar, depending on the installation and surface pressure

Types (forms)

- Round, square, oval
- With seam gaps according to drawing

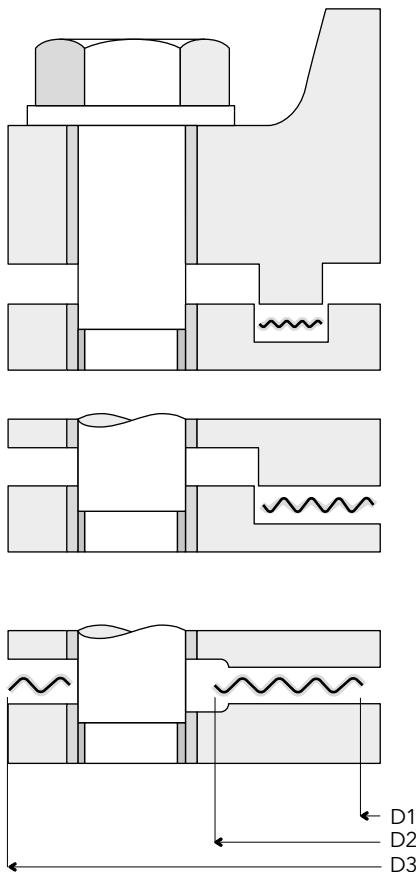
Special Features

- high compressibility
- good sealing characteristics at low bolt load
- good adaptability to rough or uneven flange surfaces
- Good adaptability even with poor surfaces
- Very high fault tolerance in assembly and operation
- Very good recovery
- Good mechanical properties at high temperature
- Manufactured to special dimensions on request

Total thickness

- Standard: approx. 2.5 mm, 3.0 mm or 3.5 mm
- Other thicknesses available on request

STYLES OF LEADER ELASTAGRAPH™ SG GASKET



MATERIALS - OVERVIEW*				
MATERIAL	DIN / EN	TRADENAME	AISI / UNS	TEMPERATURE °C
1.4301	X5CrNi18-10	Stainless Steel	304 (S30400)	-200 to +550
1.4404	X2CrNiMo17-12-2	Stainless Steel	316L (S31603)	-200 to +550
1.4571	X6CrNiMoTi17-12-2	Stainless Steel	316Ti (S31635)	-270 to +550
1.4541	X6CrNiTi18-10	Stainless Steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General Structural Steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy 800 (Alloy 800)	ASTMB409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy B2 (Alloy B2)	ASTMB333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy C276 (Alloy C276)	ASTMB575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel 600 (Alloy 600)	ASTMB168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel 400 (Alloy 400)	ASTMB127 (N04400)	-60 to +425
3.7035	Ti 2	Titan Gr. 2	ASTMB265 (R50400)	-40 to +300
Graphite ≥98%		-	-	-200 to +450**
Graphite ≥99.85%		-	-	-200 to +450**

Other materials available on request

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** (to +550 only after consultation)

Leader Corrugated Gaskets

These gaskets are used in soft and uneven flange connections to seal against hot gaseous media. The base plate of approx. 0.5 mm thickness is mostly made of stainless steel or soft iron. The overall height of the corrugation is approx. 1.2 - 1.5 mm. The layer is made of Graphite or PTFE (ePTFE).

The total thickness of a standard pipe gasket is approximately 3.0 mm with a 0.8-mm layer on both sides. Other layer thicknesses, such as 0.5 mm and 1 mm, are also possible.

The gaskets can be manufactured in all common shapes and dimensions.



Applications

- Pipes (DIN/ANSI)
- TA-Luft (Technical Instructions on Air Quality Control)
- Grooved flanges
- Heat exchanger
- Equipment
- Boilers
- Compensation for unevenness

Approvals



Properties

Metal Core

- Thickness: 0,5 mm, corrugations ca. 1,2 - 1,5 mm
- Pitch diameter 3 - 4 mm
- Stainless Steel /Steel in various grades

Soft material layer

- Thickness: 0.5, 0.8 and 1 mm layers
- Graphite (-200 to +450°C)
- PTFE (-240 to +250°C)

Pressure

- Max. 64 bar, depending on the installation and surface pressure

Types (forms)

- Round, oval, rectangular
- With seam gaps according to drawing

Special Features

- Very good flexibility
- Blow-out certified

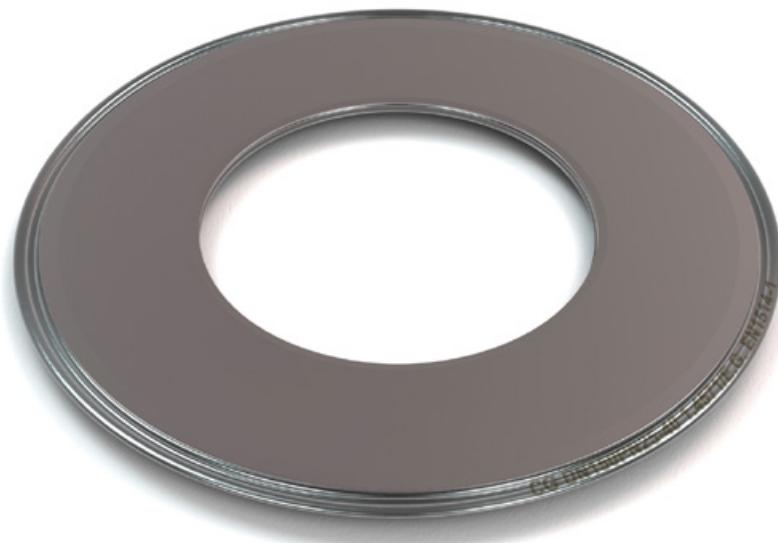
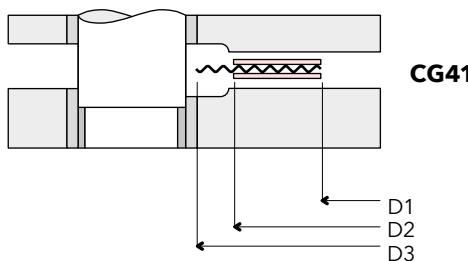
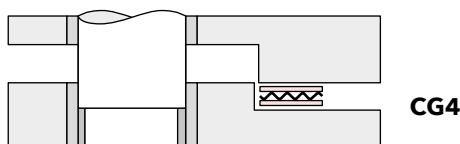
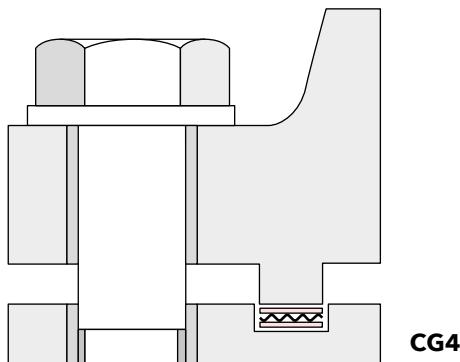
Total thickness

- 2.5 mm, 3.0 mm or 3.5 mm
- Other thicknesses are available on request

SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
CG4, CG41-Stainless Steel carrier / Steel			
Facing Graphite	20	20	250
	300	20	150
Facing PTFE	20	25	150
	200	25	-

Latest version of productdatasheet available on www.leadergt.com

STYLES OF LEADER CORRUGATED GASKETS



-  **Style CG4** fully coated
-  **Style CG4** with internal flanges
-  **Style CG41** partially coated

MATERIALS - OVERVIEW*				
MATERIALS	DIN / EN	TRADENAME	AISI / UNS	TEMPERATURE °C
1.4301	X5CrNi18-10	Stainless Steel	304 (S30400)	-200 to +550
1.4404	X2CrNiMo17-12-2	Stainless Steel	316L (S31603)	-200 to +550
1.4571	X6CrNiMoTi17-12-2	Stainless Steel	316Ti (S31635)	-270 to +550
1.4541	X6CrNiTi18-10	Stainless Steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General Structural Steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy 800 (Alloy 800)	ASTMB409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy B2 (Alloy B2)	ASTMB333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy C276 (Alloy C276)	ASTMB575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel 600 (Alloy 600)	ASTMB168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel 400 (Alloy 400)	ASTMB127 (N04400)	-60 to +425
3.7035	Ti 2	Titanium Gr. 2	ASTMB265 (R50400)	-40 to +300
Graphite ≥98%			-	-200 to +450**
Graphite ≥99.85%			-	-200 to +450**
PTFE			-	-240 to +250
ePTFE			-	-240 to +250

Other materials available on request

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** (to +550 only after consultation)



METALLIC GASKETS

Leader RTJ

RING TYPE JOINT GASKETS

Leader RTJ gaskets are solid, full metal gaskets with a special profile, for use in special flanges. Ring Joint Gaskets (RTJ) are designed for use under high pressures and Temperatures. They are used primarily in the (petro)chemical industry.

Dimensions and profiles are defined in the standards API 6A, ASME B 16.20 and ISO 7483.

The contact surfaces between RTJ gaskets and flanges are relatively small so that a very high surface pressure can be realised. This is necessary to push the sealing material into the uneven areas of the flange. In order to avoid damage to the flanges, it is important that the sealing material is softer than the material of the flanges. For this reason, the API 6A specifies maximum values for the hardness of different materials for RTJ seals.

Applications

- Piping (RTJ)
- Very high pressures
- Refinery
- Gas Industry
- Petrochemicals
- High pressure valves
- Gas compressors



Properties

Metal

- Various steels and stainless steels in accordance with material table

Style

- Oval
- Octogonal
- RX
- BX

Pressure

- Max. 400 bar, depending on the installation and surface pressure

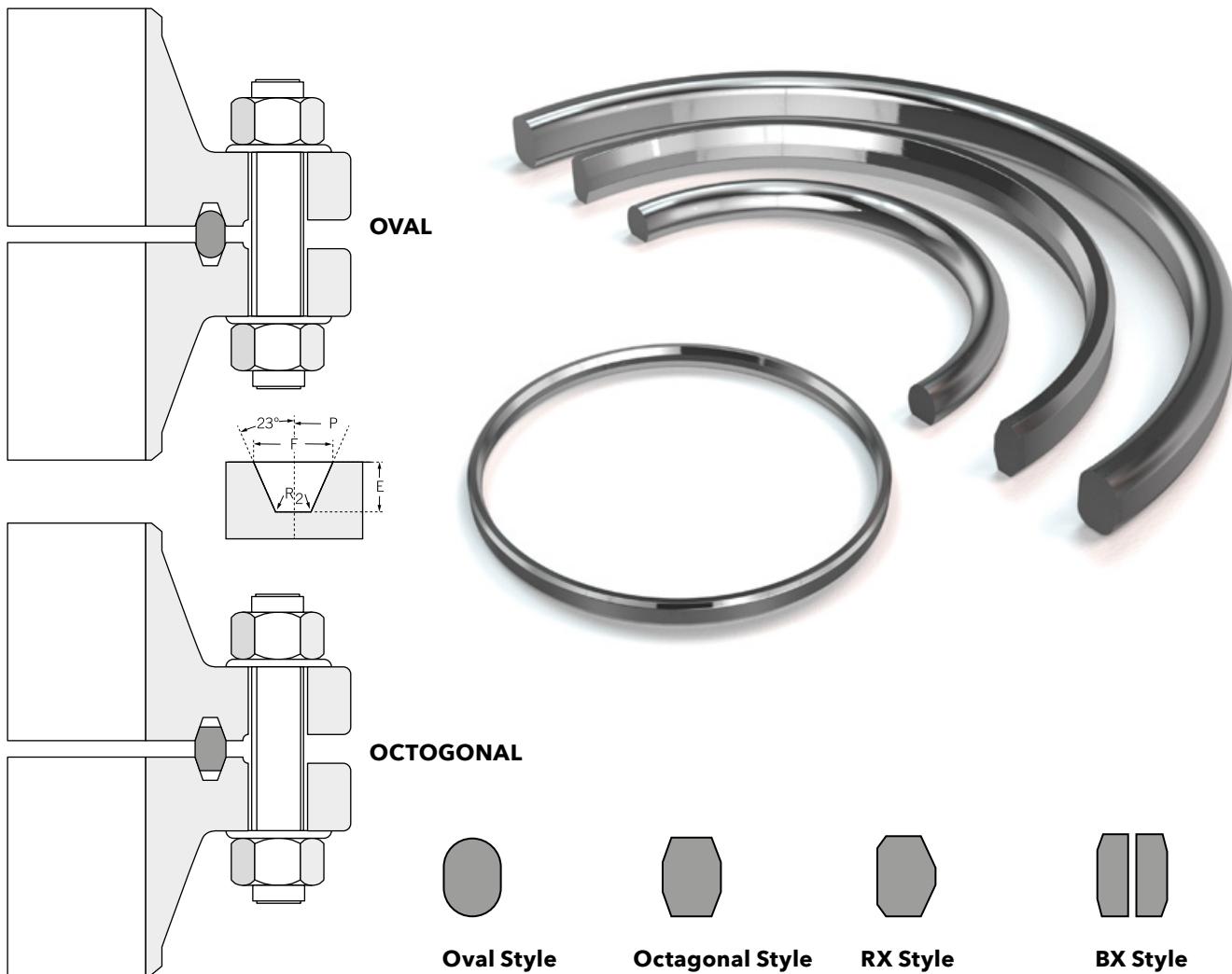
Types

- In accordance with API 6A, ASME B16.20
- Special dimension

SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
RTJ-Gasket			
Soft iron	20	240	520
	300	240	300
Stainless steel	20	330	750
	200	330	620

Latest version of productdatasheet available on www.leadergt.com

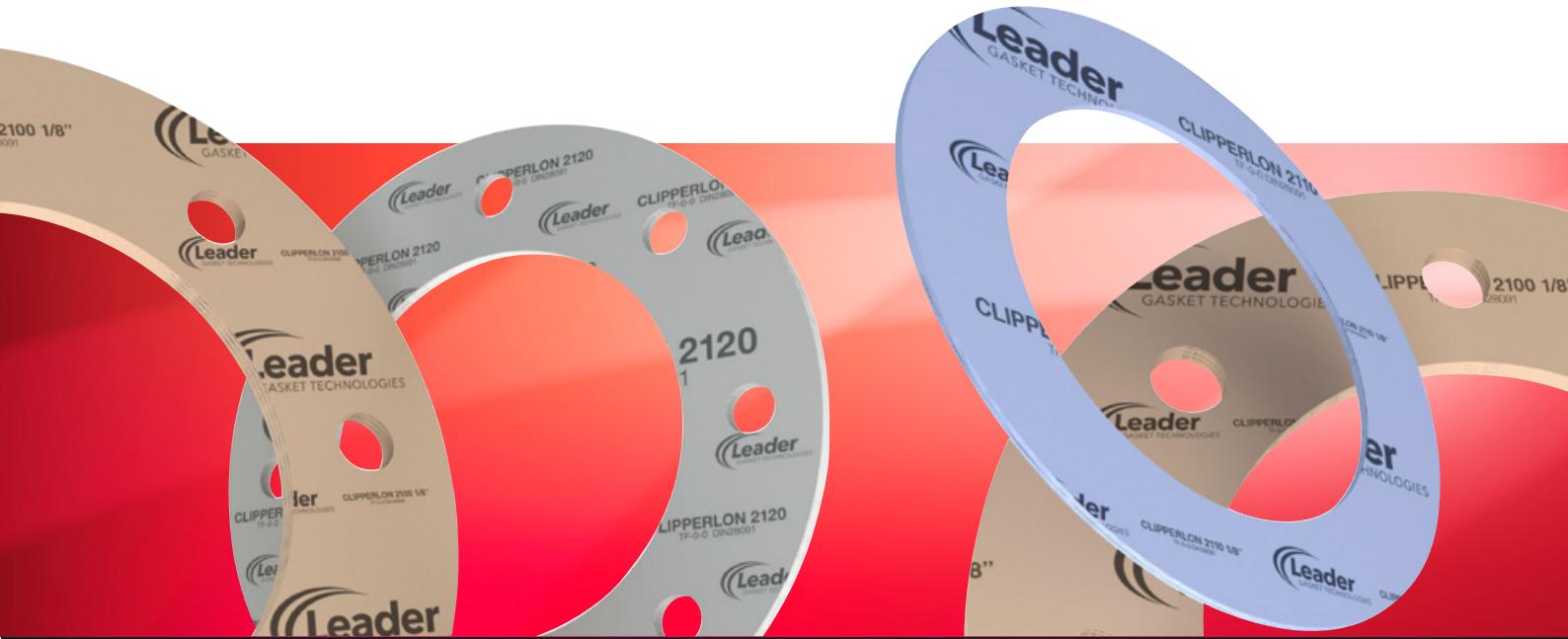
STYLES OF LEADER RTJ GASKET



MATERIALS - OVERVIEW*							
DIN / EN DESIGNATION	MATERIAL	AISI ASTM UNS	HARDNESS (MAX)*		TEMPERATURE (°C)		DENSITY (g/cm³)
			BRINELL HB	ROCKWELL B	min.	max.	
Soft Iron	-	-	90	52	-60	500	7,9
12CrMo19-5	1.7362	A182-F5 (S50100)	ca. 130	72	-40	650	7,9
X5CrNi18-10	1.4301	304 (S30400)	ca. 160	83	-200	550	7,9
X2CrNi19-11	1.4306	304 L (S30403)	ca. 160	83	-200	550	7,9
X5CrNiMo 17-12-2	1.4401	316 (S31600)	ca. 160	83	-200	550	7,9
X2CrNiMo 17-12-2	1.4404	316 L (S31603)	ca. 160	83	-270	550	7,9
X6CrNiMoTi17-12-2	1.4571	316 Ti (S31635)	ca. 160	83	-270	550	7,9
X6CrNiTi 18-10	1.4541	321 (S32100)	ca. 160	83	-270	550	7,9
X6CrNb 18-10	1.4550	347 (S34700)	ca. 160	83	-270	550	7,9
X15CrNiSi 20-12	1.4828	309 (S30900)	-	-	-110	1000	7,9
NiCr15Fe	2.4816	ASTMB168 (N06600)	-	-	-60	900	8,4
X10NiCrAlTi32-20	1.4876	ASTMB409 (N08800)	-	-	-110	950	8,0
NiCr21Mo	2.4858	ASTMB424 (N08825)	-	-	-110	450	8,1
NiMo28	2.4617	ASTMB333 (N10665)	-	-	-200	450	9,2
NiMo16Cr15W	2.4819	ASTMB575 (N10276)	-	-	-200	450	8,9

Other materials available on request

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PTFE SHEETS AND GASKETS

Leader Clipperlon 2100

MODIFIED PTFE SHEET (GASKET) WITH SILICA FILLER

The finely divided silica filler gives a very good cold flow resistance and good stress retention properties, even at elevated temperatures. Because of the low diffusion properties and uniform structure, Clipperlon 2100 is the ideal sealing material for applications with the highest demands for low emissions.



Applications

- Pipes (DIN/ANSI)
- TA-Luft
- Grooved flanges
- Heat exchanger
- Equipment
- Cable glands
- For high surface pressure
- For highly aggressive media
- In the full pH range
- Temperature-stressed components

Properties

- Can be used from -240°C to approx. 240°C, depending on the installation and operating conditions
- Max. 85 bar, depending on the installation and operating conditions (*- pressure and temperatures not to be used simultaneously)
- 100% modified PTFE with inorganic filler
- Filling: Silica
- Greatly reduced cold flow
- High stability under thermal load
- Chemically inert (with the exception of melted alkali metals and elemental fluorine)

SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
Clipperlon			
2100 2 mm	20 200	25 25	150 100

Latest version of productdatasheet available on www.leadergt.com

Sheet format

- 1500 x 1500 mm, special format available

Thickness

- 0,65 mm 1 mm 1,5 mm 2 mm 3 mm

Approvals



Leader Clipperlon 2110

MODIFIED PTFE SHEET (GASKET) WITH HOLLOW GLASS MICROSPHERE FILLER

Uniform version of the hollow microsphere filler leads to a low density material with low sealing stress and good adaptability to rough or uneven flanges. Low leakage rate and low creep leads to safe sealing. Clipperlon 2110 is a general - purpose PTFE sealing material for all flange connections, also for flanges with easily damaged sealing surfaces (including glass lining) and it also has good electrical insulating properties for where electrical isolation is required.



Applications

- Flanged Pipes (DIN/ANSI)
- TA-Luft
- Glass, ceramic or plastic flanges
- Enamelled pipe flanges
- Steel flanges
- Heat exchanger
- Equipment
- For low surface stress sealing
- For highly aggressive media
- In the full pH range.
- For damaged sealing surfaces
- For pressure-sensitive components

Properties

- Can be used from -240°C to approx. 240°C, depending on the installation and operating conditions
- Max. 55 bar, depending on the installation and operating conditions (*- pressure and temperatures not to be used simultaneously)
- 100% modified PTFE filled with micro-hollow glass balls
- Greatly reduced cold flow
- High compressibility and flexibility
- Very good resistance
- Residue free removal
- Chemically inert (with the exception of melted alkali metals and elemental fluorine)

Sheet format

- 1500 x 1500 mm

Thickness

- 0,65 mm 1 mm 1,5 mm 2 mm 3 mm

Approvals



SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
Clipperlon			
2110 2 mm	20 200	15 15	150 70

Latest version of productdatasheet available on www.leadergt.com

Leader Clipperlon 2120

MODIFIED PTFE SHEET (GASKET) WITH BARIUM SULFATE FILLER

Modified PTFE gasket material containing biaxial orientated chains to obtain a tight seal for demanding applications. Clipperlon 2120 is a very dense material with low compressibility, high recovery and low creep properties. Off-white in color and produced with Modified PTFE and barium sulfate filler. Clipperlon 2120 particularly suitable for use with hydrofluoric acid and chlorine applications and a wide variety of different media across the whole pH-range. Due to the high density this material is highly recommended for applications with monomers to avoid the 'popcorn' effect. This effect will be result when the monomer enters the micro-voids of the PTFE



Applications

- Flanged Pipes (DIN/ANSI)
- Chlorine Applications
- Good electronical insulation properties
- TA-Luft
- Steel flanges
- Heat exchanger
- Equipment
- Chlorine Applications
- For highly aggressive media
- In the full pH range

Properties

- Can be used from -240°C to approx. 240°C, depending on the installation and operating conditions
- Max. 55 bar, depending on the installation and operating conditions (*- pressure and temperatures not to be used simultaneously)
- 100% modified PTFE filled with barium sulfate
- Greatly reduced cold flow
- High compressibility and flexibility
- Very good resistance
- Residue free removal
- Chemically inert (with the exception of melted alkali metals and elemental fluorine)

SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
Clipperlon			
2120 2 mm	20	25	150
	200	25	100

Latest version of productdatasheet available on www.leadergt.com

Sheet format

- 1500 x 1500 mm

Thickness

- 0,65 mm 1 mm 1,5 mm 2 mm 3 mm

Approvals



Leader Clipperlon 2130

100% PURE MULTI-DIRECTIONAL EXPANDED PTFE

Clipperlon 2130 gasket sheets are made of 100% pure, multi-directional expanded PTFE, with virtually unlimited chemical resistance. When installed, Clipperlon gaskets provide exceptionally good adaptability to flange roughness and unevenness. A high surface pressure is maintained in operation under pressure and Temperature load.

Clipperlon 2130 achieves very good stability and tightness with good blow-out resistance especially in demanding steel flange applications. The good resistance behaviour of the material leads to increased operating safety, even in changing operating conditions.



Applications

- Flanged Pipes (DIN/ANSI)
- TA-Luft
- Steel and enamel flanges
- Heat exchanger
- Equipment
- For high surface stress
- For highly aggressive media
- In the full pH range.
- For damaged sealing surfaces

Properties

- Can be used from -240°C to approx. 240°C, depending on the installation and operating conditions
- Max. 40 bar, depending on the installation and operating conditions (*- pressure and temperatures not to be used simultaneously)
- 100% pure multi-directional expanded PTFE
- No cold flow
- Good adaptability to surface irregularities
- Low creep relaxation
- Residue free removal
- Chemically inert (with the exception of melted alkali metals and elemental fluorine)

SURFACE PRESSURE LIMITS			
STYLE	TEMP. °C	min. MPa	max. MPa
Clipperlon			
2130 2 mm	20	25	150
	200	25	60

Latest version of productdatasheet available on www.leadergt.com

Sheet format

- 1500 x 1500 mm

Thickness

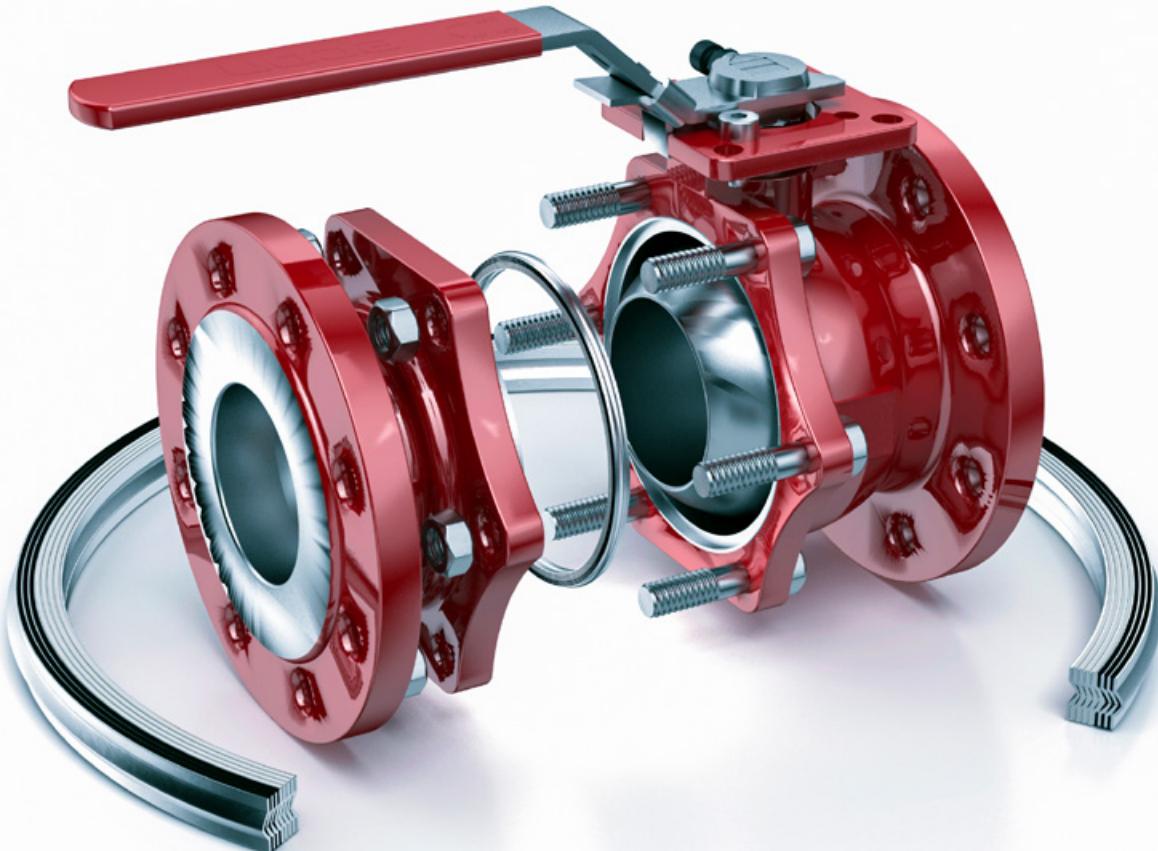
- 0,65 mm 1 mm 1,5 mm 2 mm 3 mm 4 mm 6 mm

Approvals



OEM Custom Made Gaskets

CO-ENGINEERING SPECIAL AND CUSTOM MADE GASKETS



Leader Gasket Technologies develops and manufactures special and custom made seals and gaskets according to customer specifications for various OEM and customized applications. Our engineering team has extensive experience in working together with customers in Co engineering projects in the automotive industry and other industries where special machinery and equipment is manufactured.

Engineering team

Our engineering team can provide the engineering expertise and capability to develop, plan, design and build the solutions for any application in the OEM Industry. We pride ourselves in successfully co-engineering products with customers that meet their specific requirements with approved procedures, tests - LDC, Room temperature Leakage and others.

Special gaskets

Gaskets are produced in different styles special types for the most demanding applications in, such as:

Automotive industry

- Exhaust and manifold gaskets
- Valves
- Heat exchanger
- Heating and cooling equipment
- Special machinery and others

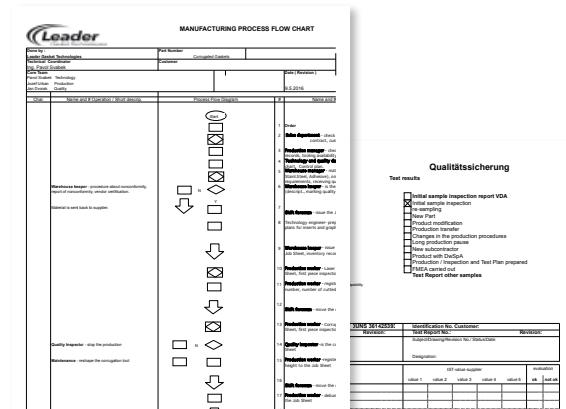
Customer base

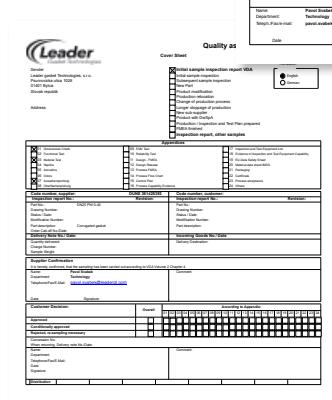
Leader Gasket Technologies supplies special produced gaskets to many OEM customers around the world. In the automotive industry we work together with major car and truck manufacturers and component suppliers for engines.

Our approach

With both multinationals and small, specialized companies in the manufacturing industry, we sit down together at an early stage of engineering with R&D employees to work together on the perfect product.

Leader Gasket Technologies and its allied distributors has very experienced Application Engineers closely at our customers available to give advising and guiding you through the design, prototyping and testing process. By working in this way, we contribute to the achievement of your ambition to quickly and successfully introduce new products or innovative power. Starting from brainstorming on ideas followed in the end of the proces by first sample and mass production of your part.

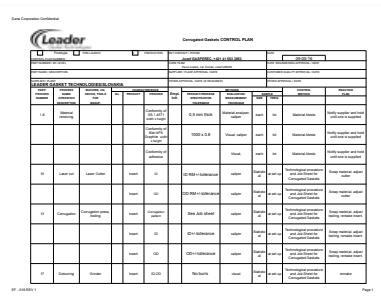





Documentation Quality

At Leader Gasket Technologies several quality processes and documentation are in place supporting and contributing OEM and Automotiv develop, design and manufacturing projects; such as:

- EMPB PPAP ISIR procedure First Sample Reporting
- APQP flowchart
- Fabrication Control Plan
- Customer in house specific documentation
- Batch Control System



Engineering Team

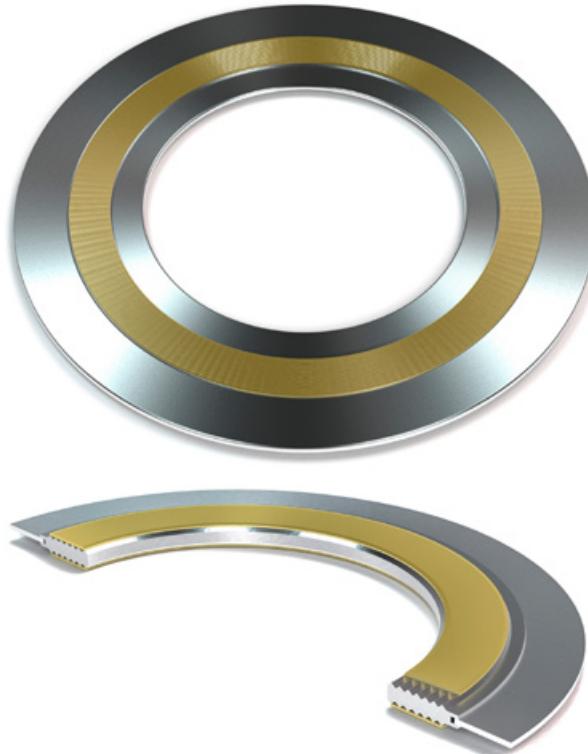
feel free contact or challange our Engineering Team with your projects



LeaderTHERM

LeaderTHERM consists of impregnated phlogopite mica flake structure. Mica, an aluminosilicate of mineral origin, has a lamellar and non fibrous structure representing an excellent alternative to asbestos at high temperatures. This material gives LeaderTHERM Sheet its thermal characteristics - weight loss at 800 C (1472 F) less than 5% - and its chemical resistance to solvents, acids, bases and mineral oils.

LeaderTHERM Sheet is developed specifically for high temperature applications (up to 1800F) as a sheet material, filler for spiral wound gaskets or facing for kammpfproflles. The material offers outstanding resistance to elevated temperatures as well as good sealability at moderate pressures.



Applications

- Exhaust manifolds
- Gas turbines
- Gas and oil burners
- Heat exchanger

Operating Limits

- Maximum continuous service temperature 1800F
- LeaderTHERM Sheet & Tanged rated to a maximum of 80 psi
- Spiral wound style *SRI-LTD rated to 1500F for ASME B16.5 Class 150 to 2500
- Spiral wound style SRI-LT (LeaderTHERM "only" filler) consult with LGT engineering dept.
- Spiral wound style SRI-LCL (LeaderTHERM "only" filler & Kamprofile Inner Ring Facing) consult with LGT engineering dept.
- LeaderKAM with hybrid facing (inhibited graphite and LeaderTHERM combination) rated to 850°C for ASME B16.5

* Hybrid spiral wound gasket with (3) LeaderTHERM wraps on O.D. and remaining wraps of inhibited grade graphite. Oxidizing processes will require an additional (3) wraps of Leadertherm on I.D.

ASME Values

- M= 3.5
- Y= 4350 psi

Technical Data

- | | |
|---|-------------------------|
| ▪ Thickness: | 0.1 - 3 mm |
| ▪ Density (IEC 371-2): | 2.0 g / cm ³ |
| ▪ Tensile Strength (DIN 52910): | 20 N / mm ² |
| ▪ Compressibility (ASTM F36J): | 25% |
| ▪ Recovery (ASTM F36-J): | 35% |
| ▪ Residual Stress (BS7531): | 33 Mpa |
| ▪ Dielectric Strength (IEC 243 - 23°C): | + 20 kV/mm |
| ▪ Creep Strength (DIN 52913) | |
| ▪ 50 Mpa, 300°C * | |
| ▪ 7252 psi, 572°F * | |

* The measurement was performed on LeaderTHERM Sheet with a tanged steel insert.

Availability

- In rolls or sheets or as winding strip for spiral wound gaskets. Available thicknesses 0.8mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm

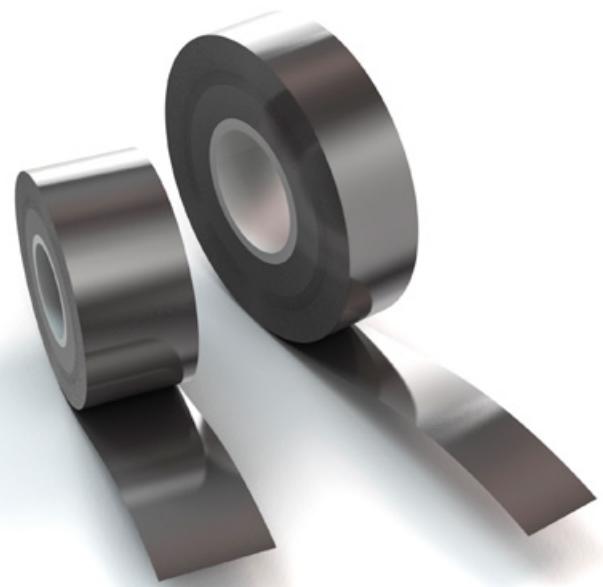
Storage

- Should be stored in a cool dry place away from sources of humidity.

HPLE Flexible Graphite

HIGH PERFORMANCE LOW EMISSIONS FLEXIBLE GRAPHITE

Leader HPLE is the highest inhibited grade of flexible graphite meeting the most stringent graphite requirements on temperature, weightloss and emission rates on flange gaskets set by the global industries. Leader Gasket Technologies has standardized on this grade of HPLE graphite as minimum requirement for all spiral wounds and kammprofile gaskets.



PROPERTIES:	
Density	1.04 g/cm ³ (64.9 lb/ft ³) Tolerance +/- 0.7 g/cm ³
Ash Content	2% max.
Carbon Content	98% min.
Leachable Chlorides (CL)	50 ppm max.
Sulfur Content (S)	750 ppm max.
Fluorine Content (F)	10 ppm max.
Total Halogen Content (chlorine, bromine, & fluorine)	310 ppm max.
TGA Oxidation Weight Loss Test	Below < 4% per hour 670 °C for 4 hrs. per In accordance with EN14772 Section 6.7

Flange gaskets*

Gaskets according to EN 1514-1 (1997)

For flanges in accordance with EN 1092-1-2-3-4



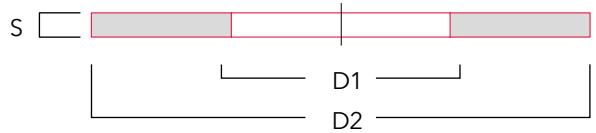
PN	FORM IBC								SR	TG	
	6-40	64	6	10	16	25	40	64		D1	D2
DN	D1	D1	D2	D2	D2	D2	D2	D2	D2	D1	D2
10	18	18	39	46	46	46	46	56	34	24	34
15	22	21	44	51	51	51	51	61	39	29	39
20	27	25	54	61	61	61	61	72	50	36	50
25	34	30	64	71	71	71	71	82	57	43	57
32	43	41	76	82	82	82	82	88	65	51	65
40	49	47	86	92	92	92	92	103	75	61	75
50	61	59	96	107	107	107	107	113	87	73	87
65	77	73	116	127	127	127	127	138	109	95	109
80	89	86	132	142	142	142	142	148	120	106	120
100	115	110	152	162	162	168	168	174	149	129	149
125	141	135	182	192	192	194	194	210	175	155	175
150	169	163	207	218	218	224	224	247	203	183	203
200	220	210	262	273	273	284	290	309	259	239	259
250	273	264	317	328	329	340	352	364	312	292	312
300	324	314	373	378	384	400	417	424	363	343	363
350	356	360	423	438	444	457	474	486	421	395	421
400	407	415	473	489	495	514	546	543	473	447	473
450	458		528	539	555	564	571		523	497	523
500	508		578	594	617	624	628		575	549	575
600	610		679	695	734	731	747		675	649	675
700	712		784	810	804	833	-		777	751	777
800	813		890	917	911	942	-		882	856	882
900	915		990	1017	1011	1042	-		987	961	987
1000	1016		1090	1124	1128	1154	-		1092	1062	1092
1100	1120		-	1231	1228	1254	-		-	-	-
1200	1220		1307	1341	1342	1364	-		-	-	-
1400	1420		1524	1548	1542	1578	-		-	-	-
1500	1520		-	1658	1654	1688	-		-	-	-
1600	1620		1724	1772	1764	1798	-		-	-	-
1800	1820		1931	1972	1964	2000	-		-	-	-
2000	2020		2138	2182	2168	2230	-		-	-	-
2200	2220		2348	2384	-	-	-		-	-	-
2400	2420		2558	2594	-	-	-		-	-	-
2600	2620		2762	2794	-	-	-		-	-	-
2800	2820		2972	3014	-	-	-		-	-	-
3000	3020		3172	3228	-	-	-		-	-	-
3200	3220		3382	-	-	-	-		-	-	-
3400	3420		3592	-	-	-	-		-	-	-
3600	3620		3804	-	-	-	-		-	-	-

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Flange gaskets*

Gaskets according to ASME B16.21 (2011)

For flanges according to ASME/ANSI B16.5



LBS	150		300		400		600		900		1500	
Inch	D1	D2	D1	D2								
1/2"	21	48	21	54	21	54	21	54	21	64	21	64
3/4"	27	57	27	67	27	67	27	67	27	70	27	70
1"	33	67	33	73	33	73	33	73	33	79	33	79
1 1/4"	42	76	42	83	42	83	42	83	42	89	42	89
1 1/2"	48	86	48	95	48	95	48	95	48	98	48	98
2"	60	105	60	111	60	111	60	111	60	143	60	143
2 1/2"	73	124	73	130	73	130	73	130	73	165	73	165
3"	89	137	89	149	89	149	89	149	89	168	89	175
3 1/2"	102	162	102	165	102	162	102	162				
4"	114	175	114	181	114	178	114	194	114	206	114	210
5"	141	197	141	216	141	213	141	241	141	248	141	254
6"	168	222	168	251	168	248	168	267	168	289	168	283
8"	219	279	219	308	219	305	219	321	219	359	219	352
10"	273	340	273	362	273	359	273	400	273	435	273	435
12"	324	410	324	422	324	419	324	457	324	498	324	521
14"	356	451	356	486	356	483	356	492	356	521	356	578
16"	406	514	406	540	406	537	406	565	406	575	406	641
18"	457	549	457	597	457	594	457	613	457	638	457	705
20"	508	606	508	654	508	648	508	683	508	699	508	756
24"	610	718	610	775	610	768	610	791	610	838	610	902

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Flange gaskets*

Gaskets according to ASME B16.21 (2011)

For flanges according to ASME/ANSI B16.47 Series A



LBS	LBS 150		LBS 300		LBS 400		LBS 600	
Zoll	d1	d2	d1	d2	d1	d2	d1	d2
26	660	775	660	835	660	832	660	867
28	711	832	711	899	711	892	711	914
30	762	883	762	953	762	946	762	972
32	813	940	813	1006	813	1003	813	1022
34	864	991	864	1057	864	1054	864	1073
36	914	1048	914	1118	914	1118	914	1130
38	965	1111	965	1054	965	1073	965	1105
40	1016	1162	1016	1114	1016	1127	1016	1156
42	1067	1219	1067	1165	1067	1178	1067	1219
44	1118	1276	1118	1219	1118	1232	1118	1270
46	1168	1327	1168	1273	1168	1289	1168	1327
48	1219	1384	1219	1324	1219	1346	1219	1391
50	1270	1435	1270	1378	1270	1403	1270	1448
52	1321	1492	1321	1429	1321	1454	1321	1499
54	1372	1549	1372	1492	1372	1518	1372	1556
56	1422	1607	1422	1543	1422	1568	1422	1613
58	1473	1664	1473	1594	1473	1619	1473	1664
60	1524	1715	1524	1645	1524	1683	1524	1721

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Flange gaskets*

Gaskets according to ASME B16.21 (2011)

For flanges according to ASME/ANSI B16.47 Serie B



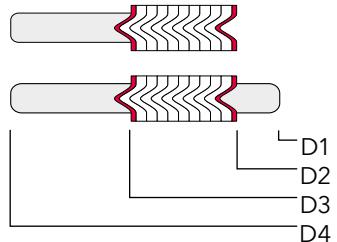
LBS	LBS 75		LBS 150		LBS 300		LBS 400		LBS 600	
Zoll	d1	d2	d1	d2	d1	d2	d1	d2	d1	d2
26	660	708	660	725	660	772	660	746	660	765
28	711	759	711	776	711	826	711	800	711	819
30	762	810	762	827	762	886	762	857	762	879
32	813	860	813	881	813	940	813	911	813	933
34	864	911	864	935	864	994	864	962	864	997
36	914	973	914	987	914	1048	914	1022	914	1048
38	965	1024	965	1045	965	1099				
40	1016	1075	1016	1095	1016	1149				
42	1067	1126	1067	1146	1067	1200				
44	1118	1181	1118	1197	1118	1251				
46	1168	1232	1168	1256	1168	1318				
48	1219	1283	1219	1307	1219	1368				
50	1270	1334	1270	1357	1270	1419				
52	1321	1387	1321	1408	1321	1470				
54	1372	1438	1372	1464	1372	1530				
56	1422	1495	1422	1514	1422	1594				
58	1473	1546	1473	1580	1473	1656				
60	1524	1597	1524	1630	1524	1705				

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Flange gaskets*

Spiral wound gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5



	CLASS 150				CLASS 300				CLASS 400			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
1/2	14,2	19,1	31,8	47,8	14,2	19,1	31,8	54,1	14,2	19,1	31,8	54,1
3/4	20,6	25,4	39,6	57,2	20,6	25,4	39,6	66,8	20,6	25,4	39,6	66,8
1	26,9	31,8	47,8	66,8	26,9	31,8	47,8	73,2	26,9	31,8	47,8	73,2
1 1/4	38,1	47,8	60,5	76,2	38,1	47,8	60,5	82,6	38,1	47,8	60,5	82,6
1 1/2	44,5	54,1	69,9	85,9	44,5	54,1	69,9	95,3	44,5	54,1	69,9	95,3
2	55,6	69,9	85,9	104,9	55,6	69,9	85,9	111,3	55,6	69,9	85,9	111,3
2 1/2	66,5	82,6	98,6	124,0	66,5	82,6	98,6	130,3	66,5	82,6	98,6	130,3
3	81,0	101,6	120,7	136,7	81,0	101,6	120,7	149,4	81,0	101,6	120,7	149,4
4	106,4	127,0	149,4	174,8	106,4	127,0	149,4	181,1	102,6	120,7	149,4	177,8
5	131,8	155,7	177,8	196,9	131,8	155,7	177,8	215,9	128,3	147,6	177,8	212,9
6	157,2	182,6	209,6	222,3	157,2	182,6	209,6	251,0	154,9	174,8	209,6	247,7
8	215,9	233,4	263,7	279,4	215,9	233,4	263,7	308,1	205,7	225,6	263,7	304,8
10	268,2	287,3	317,5	339,9	268,2	287,3	317,5	362,0	255,3	274,6	317,5	358,9
12	317,5	339,9	374,7	409,7	317,5	339,9	374,7	422,4	307,3	327,2	374,7	419,1
14	349,3	371,6	406,4	450,9	349,3	371,6	406,4	485,9	342,9	362,0	406,4	482,6
16	400,1	422,4	463,6	514,4	400,1	422,4	463,6	539,8	389,9	412,8	463,6	536,7
18	449,3	474,7	527,1	549,4	449,3	474,7	527,1	596,9	438,2	469,9	527,1	593,9
20	500,1	525,5	577,9	606,6	500,1	525,5	577,9	654,1	489,0	520,7	577,9	647,7
24	603,3	628,7	685,8	717,6	603,3	628,7	685,8	774,7	590,6	628,7	685,8	768,4

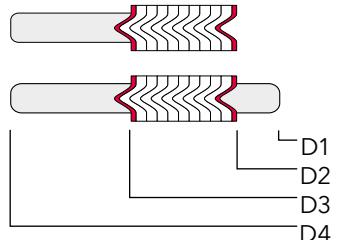
	CLASS 600				CLASS 900				CLASS 1500				CLASS 2500			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
1/2	14,2	19,1	31,8	54,1	14,2	19,1	31,8	63,5	14,2	19,1	31,8	63,5	14,2	19,1	31,8	69,9
3/4	20,6	25,4	39,6	66,8	20,6	25,4	39,6	69,9	20,6	25,4	39,6	69,9	20,6	25,4	39,6	76,2
1	26,9	31,8	47,8	73,2	26,9	31,8	47,8	79,5	26,9	31,8	47,8	79,5	26,9	31,8	47,8	85,9
1 1/4	38,1	47,8	60,5	82,6	33,3	39,6	60,5	88,9	33,3	39,6	60,5	88,9	33,3	39,6	60,5	104,9
1 1/2	44,5	54,1	69,9	95,3	41,4	47,8	69,9	98,6	41,4	47,8	69,9	98,6	41,4	47,8	69,9	117,6
2	55,6	69,9	85,9	111,3	52,3	58,7	85,9	143,0	52,3	58,7	85,9	143,0	52,3	58,7	85,9	146,1
2 1/2	66,5	82,6	98,6	130,3	63,5	69,9	98,6	165,1	63,5	69,9	98,6	165,1	63,5	69,9	98,6	168,4
3	81,0	101,6	120,7	149,4	78,7	95,3	120,7	168,4	78,7	92,2	120,7	174,8	78,7	92,2	120,7	196,9
4	102,6	120,7	149,4	193,8	102,6	120,7	149,4	206,5	97,8	117,6	149,4	209,6	97,8	117,6	149,4	235,0
5	128,3	147,6	177,8	241,3	128,3	147,6	177,8	247,7	124,5	143,0	177,8	254,0	124,5	143,0	177,8	279,4
6	154,9	174,8	209,6	266,7	154,9	174,8	209,6	289,1	147,3	171,5	209,6	282,7	147,3	171,5	209,6	317,5
8	205,7	225,6	263,7	320,8	196,9	222,3	257,3	358,9	196,9	215,9	257,3	352,6	196,9	215,9	257,3	387,4
10	255,3	274,6	317,5	400,1	246,1	274,6	311,2	435,1	246,1	266,7	311,2	435,1	246,1	270,0	311,2	476,3
12	307,3	327,2	374,7	457,2	292,1	323,9	368,3	498,6	292,1	323,9	368,3	520,7	292,1	317,5	368,3	549,4
14	342,9	362,0	406,4	492,3	320,8	355,6	400,1	520,7	320,8	362,0	400,1	577,9				
16	389,9	412,8	463,6	565,2	374,7	412,8	457,2	574,8	368,3	406,4	457,2	641,4				
18	438,2	469,9	527,1	612,9	425,5	463,6	520,7	638,3	425,5	463,6	520,7	704,9				
20	489,0	520,7	577,9	682,8	482,6	520,7	571,5	698,5	476,3	514,4	571,5	755,7				
24	590,6	628,7	685,8	790,7	590,6	628,7	679,5	838,2	577,9	616,0	679,5	901,7				

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Flange gaskets*

Spiral wound gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.47 Serie A
(formerly API 601 For flanges according to MSS SP-44)



Zoll	LBS 150				LBS 300				LBS 400			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
26	654,1	673,1	704,9	774,7	654,1	685,8	736,6	835,2	660,4	685,8	736,6	831,9
28	704,9	723,9	755,7	831,9	704,9	736,6	787,4	898,7	711,2	736,6	787,4	892,3
30	755,7	774,7	806,5	882,7	755,7	793,8	844,6	952,5	755,7	793,8	844,6	946,2
32	806,5	825,5	860,6	939,8	806,5	850,9	901,7	1006,6	812,8	850,9	901,7	1003,3
34	857,3	876,3	911,4	990,6	857,3	901,7	952,5	1057,4	863,6	901,7	952,5	1054,1
36	908,1	927,1	968,5	1047,8	908,1	955,8	1006,6	1117,6	917,7	955,8	1006,6	1117,6
38	958,9	977,9	1019,3	1111,3	952,5	977,9	1016,0	1054,1	952,5	971,6	1022,4	1073,2
40	1009,7	1028,7	1070,1	1162,1	1003,3	1022,4	1070,1	1114,6	1000,3	1025,7	1076,5	1127,3
42	1060,5	1079,5	1124,0	1219,2	1054,1	1073,2	1120,9	1165,4	1051,1	1076,5	1127,3	1178,1
44	1111,3	1130,3	1178,1	1276,4	1104,9	1130,3	1181,1	1219,2	1104,9	1130,3	1181,1	1231,9
46	1162,1	1181,1	1228,9	1327,2	1152,7	1178,1	1228,9	1273,3	1168,4	1193,8	1244,6	1289,1
48	1212,9	1231,9	1279,7	1384,3	1209,8	1235,2	1286,0	1324,1	1206,5	1244,6	1295,4	1346,2
50	1263,7	1282,7	1333,5	1435,1	1244,6	1295,4	1346,2	1378,0	1257,3	1295,4	1346,2	1403,4
52	1314,5	1333,5	1384,3	1492,3	1320,8	1346,2	1397,0	1428,8	1308,1	1346,2	1397,0	1454,2
54	1358,9	1384,3	1435,1	1549,4	1352,6	1403,4	1454,2	1492,3	1352,6	1403,4	1454,2	1517,7
56	1409,7	1435,1	1485,9	1606,6	1403,4	1454,2	1505,0	1543,1	1403,4	1454,2	1505,0	1568,5
58	1460,5	1485,9	1536,7	1663,7	1447,8	1511,3	1562,1	1593,9	1454,2	1505,0	1555,8	1619,3
60	1511,3	1536,7	1587,5	1714,5	1524,0	1562,1	1612,9	1644,7	1517,7	1568,5	1619,3	1682,8

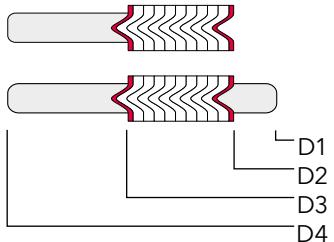
	LBS 600				LBS 900			
	d1	d2	d3	d4	d1	d2	d3	d4
26	647,7	685,8	736,6	866,9	660,4	685,8	736,6	882,7
28	698,5	736,6	787,4	914,4	711,2	736,6	787,4	946,2
30	755,7	793,8	844,6	971,6	768,4	793,8	844,6	1009,7
32	812,8	850,9	901,7	1022,4	812,8	850,9	901,7	1073,2
34	863,6	901,7	952,5	1073,2	863,6	901,7	952,5	1136,7
36	917,7	955,8	1006,6	1130,3	920,8	958,9	1009,7	1200,2
38	952,5	990,6	1041,4	1104,9	1009,7	1035,1	1085,9	1200,2
40	1009,7	1047,8	1098,6	1155,7	1060,5	1098,6	1149,4	1251,0
42	1066,8	1104,9	1155,7	1219,2	1111,3	1149,4	1200,2	1301,8
44	1111,3	1162,1	1212,9	1270,0	1155,7	1206,5	1257,3	1368,6
46	1162,1	1212,9	1263,7	1327,2	1219,2	1270,0	1320,8	1435,1
48	1219,2	1270,0	1320,8	1390,7	1270,0	1320,8	1371,6	1485,9
50	1270,0	1320,8	1371,6	1447,8				
52	1320,8	1371,6	1422,4	1498,6				
54	1378,0	1428,8	1479,6	1555,8				
56	1428,8	1479,6	1530,4	1612,9				
58	1473,2	1536,7	1587,5	1663,7				
60	1530,4	1593,9	1644,7	1733,6				

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Flange gaskets*

Spiral wound gaskets according to ASME B16.20 (2012)

in accordance with ASME/ANSI B16.47 Series B
(formerly API 601 For flanges according to API 605)



Inch	LBS 150				LBS 300				LBS 400			
	D1	D2	D3	D4	D1	D2	D3	D4	D1	D2	D3	D4
26	654,1	673,1	698,5	725,4	654,1	673,1	711,2	771,7	654,1	666,8	698,5	746,3
28	704,9	723,9	749,3	776,2	704,9	723,9	762,0	825,5	701,8	714,5	749,3	800,1
30	755,7	774,7	800,1	827,0	755,7	774,7	812,8	886,0	752,6	765,3	806,5	857,3
32	806,5	825,5	850,9	881,1	806,5	825,5	863,6	939,8	800,1	812,8	860,6	911,4
34	857,3	876,3	908,1	935,0	857,3	876,3	914,4	993,9	850,9	866,9	911,4	962,2
36	908,1	927,1	958,9	987,6	908,1	927,1	965,2	1047,8	898,7	917,7	965,2	1022,4
38	958,9	974,6	1009,7	1044,7	971,6	1009,7	1047,8	1098,6	952,5	971,6	1022,4	1073,2
40	1009,7	1022,4	1063,8	1095,5	1022,4	1060,5	1098,6	1149,4	1000,3	1025,7	1076,5	1127,3
42	1060,5	1079,5	1114,6	1146,3	1085,9	1111,3	1149,4	1200,2	1051,1	1076,5	1127,3	1178,1
44	1111,3	1124,0	1165,4	1197,1	1124,0	1162,1	1200,2	1251,0	1104,9	1130,3	1181,1	1231,9
46	1162,1	1181,1	1224,0	1255,8	1178,1	1216,2	1254,3	1317,8	1168,4	1193,8	1244,6	1289,1
48	1212,9	1231,9	1270,0	1306,6	1231,9	1263,7	1311,4	1368,6	1206,5	1244,6	1295,4	1346,2
50	1263,7	1282,7	1325,6	1357,4	1267,0	1317,8	1355,9	1419,4	1257,3	1295,4	1346,2	1403,4
52	1314,5	1333,5	1376,4	1408,2	1317,8	1368,6	1406,7	1470,2	1308,1	1346,2	1397,0	1454,2
54	1365,3	1384,3	1422,4	1463,8	1365,3	1403,4	1454,2	1530,4	1352,6	1403,4	1454,2	1517,7
56	1422,4	1444,8	1478,0	1514,6	1428,8	1479,6	1524,0	1593,9	1403,4	1454,2	1505,0	1568,5
58	1478,0	1500,1	1528,8	1579,6	1484,4	1535,2	1573,3	1655,8	1454,2	1505,0	1555,8	1619,3
60	1535,2	1557,3	1586,0	1630,4	1557,3	1589,0	1630,4	1706,6	1517,7	1568,5	1619,3	1682,8

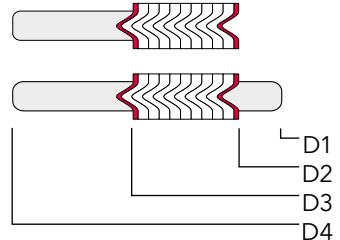
Inch	LBS 600				LBS 900			
	D1	D2	D3	D4	D1	D2	D3	D4
26	644,7	663,7	714,5	765,3	666,8	692,2	749,3	838,2
28	685,8	704,9	755,7	819,2	717,6	743,0	800,1	901,7
30	752,6	778,0	828,8	879,6	781,1	806,5	857,3	958,9
32	793,8	831,9	882,7	933,5	838,2	863,6	914,4	1016,0
34	850,9	889,0	939,8	997,0	895,4	920,8	971,6	1073,2
36	901,7	939,8	990,6	1047,8	920,8	946,2	997,0	1124,0
38	952,5	990,6	1041,4	1104,9	1009,7	1035,1	1085,9	1200,2
40	1009,7	1047,8	1098,6	1155,7	1060,5	1098,6	1149,4	1251,0
42	1066,8	1104,9	1155,7	1219,2	1111,3	1149,4	1200,2	1301,8
44	1111,3	1162,1	1212,9	1270,0	1155,7	1206,5	1257,3	1368,6
46	1162,1	1212,9	1263,7	1327,2	1219,2	1270,0	1320,8	1435,1
48	1219,2	1270,0	1320,8	1390,7	1270,0	1320,8	1371,6	1485,9
50	1270,0	1320,8	1371,6	1447,8				
52	1320,8	1371,6	1422,4	1498,6				
54	1378,0	1428,8	1479,6	1555,8				
56	1428,8	1479,6	1530,4	1612,9				
58	1473,2	1536,7	1587,5	1663,7				
60	1530,4	1593,9	1644,7	1733,6				

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Flange gaskets*

Spiral wound gaskets according to EN 1514-2 (2014)

For flanges according to EN 1092-1-2-3-4



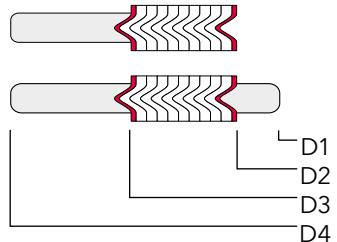
	INNENRING INNENDRM.	DICHTZONE INNENDRM.	DICHTZONE AUSSENDRM.		ZENTRIERRING AUSSENDRM.						
	D1	D2	D3		D4						
DN			PN 10-40	PN 63-160	PN10	PN16	PN25	PN40	PN63	PN100	PN160
10	18	24	34	34	46	46	46	46	56	56	56
15	23	29	39	39	51	51	51	51	61	61	61
20	28	34	46	47	61	61	61	61	-	-	-
25	35	41	53	53	71	71	71	71	82	82	82
32	43	49	61	65	82	82	82	82	-	-	-
40	50	56	68	68	92	92	92	92	103	103	103
50	61	70	86	86	107	107	107	107	113	119	119
65	77	86	102	106	127	127	127	127	137	143	143
80	90	99	115	119	142	142	142	142	148	154	154
100	115	127	143	147	162	162	168	168	174	180	180
125	140	152	172	176	192	192	194	194	210	217	217
150	167	179	199	203	218	218	224	224	247	257	257
200	216	228	248	252	273	273	284	290	309	324	324
250	267	279	303	307	327	329	340	352	364	391	388
300	318	330	354	358	377	384	400	417	424	458	458
350	360	376	400	404	437	444	457	474	486	512	
400	410	422	450	456	488	495	514	546	543	572	
500	510	522	550	556	593	617	624	628	657	704	
600	610	622	650	656	695	734	731	747	764	813	
700	710	722	756	762	810	804	833	852	879	950	
800	810	830	864	870	917	911	942	974	988		
900	910	930	964	970	1017	1011	1042	1084	1108		
1000	1010	1030	1074	1080	1124	1128	1154	1194			

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Flange gaskets*

Spiral wound gaskets according to EN 12560-2 (2013)

For flanges according to EN 1759-1



Inch	LBS 150				LBS 300			
	D1	D2	D3	D4	D1	D2	D3	D4
1/2	14,2	19,1	31,8	47,8	14,2	19,1	31,8	54,1
3/4	20,6	25,4	39,6	57,2	20,6	25,4	39,6	66,8
1	26,9	31,8	47,8	66,8	26,9	31,8	47,8	73,2
1 1/4	38,1	47,8	60,5	76,2	38,1	47,8	60,5	82,6
1 1/2	44,5	54,1	69,9	85,9	44,5	54,1	69,9	95,3
2	55,6	69,9	85,9	104,9	55,6	69,9	85,9	111,3
2 1/2	66,5	82,6	98,6	124,0	66,5	82,6	98,6	130,3
3	81,0	101,6	120,7	136,7	81,0	101,6	120,7	149,4
4	106,4	127,0	149,4	174,8	106,4	127,0	149,4	181,1
5	131,8	155,7	177,8	196,9	131,8	155,7	177,8	215,9
6	157,2	182,6	209,6	222,3	157,2	182,6	209,6	251,0
8	215,9	233,4	263,7	279,4	215,9	233,4	263,7	308,1
10	268,2	287,3	317,5	339,9	268,2	287,3	317,5	362,0
12	317,5	339,9	374,7	409,7	317,5	339,9	374,7	422,4
14	349,3	371,6	406,4	450,9	349,3	371,6	406,4	485,9
16	400,1	422,4	463,6	514,4	400,1	422,4	463,6	539,8
18	449,3	474,7	527,1	549,4	449,3	474,7	527,1	596,9
20	500,1	525,5	577,9	606,6	500,1	525,5	577,9	654,1
24	603,3	628,7	685,8	717,6	603,3	628,7	685,8	774,7

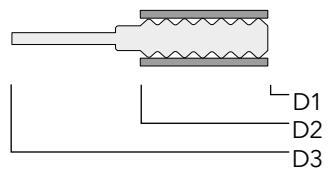
Inch	LBS 600				LBS 900				LBS 1500				LBS 2500			
	D1	D2	D3	D4	D1	D2	D3	D4	D1	D2	D3	D4	D1	D2	D3	D4
1/2	14,2	19,1	31,8	54,1	14,2	19,1	31,8	63,5	14,2	19,1	31,8	63,5	14,2	19,1	31,8	69,9
3/4	20,6	25,4	39,6	66,8	20,6	25,4	39,6	69,9	20,6	25,4	39,6	69,9	20,6	25,4	39,6	76,2
1	26,9	31,8	47,8	73,2	26,9	31,8	47,8	79,5	26,9	31,8	47,8	79,5	26,9	31,8	47,8	85,9
1 1/4	38,1	47,8	60,5	82,6	33,3	39,6	60,5	88,9	33,3	39,6	60,5	88,9	33,3	39,6	60,5	104,9
1 1/2	44,5	54,1	69,9	95,3	41,4	47,8	69,9	98,6	41,4	47,8	69,9	98,6	41,4	47,8	69,9	117,6
2	55,6	69,9	85,9	111,3	52,3	58,7	85,9	143,0	52,3	58,7	85,9	143,0	52,3	58,7	85,9	146,1
2 1/2	66,5	82,6	98,6	130,3	63,5	69,9	98,6	165,1	63,5	69,9	98,6	165,1	63,5	69,9	98,6	168,4
3	81,0	101,6	120,7	149,4	78,7	95,3	120,7	168,4	78,7	92,2	120,7	174,8	78,7	92,2	120,7	196,9
4	102,6	120,7	149,4	193,8	102,6	120,7	149,4	206,5	97,8	117,6	149,4	209,6	97,8	117,6	149,4	235,0
5	128,3	147,6	177,8	241,3	128,3	147,6	177,8	247,7	124,5	143,0	177,8	254,0	124,5	143,0	177,8	279,4
6	154,9	174,8	209,6	266,7	154,9	174,8	209,6	289,1	147,3	171,5	209,6	282,7	147,3	171,5	209,6	317,5
8	205,7	225,6	263,7	320,8	196,9	222,3	257,3	358,9	196,9	215,9	257,3	352,6	196,9	215,9	257,3	387,4
10	255,3	274,6	317,5	400,1	246,1	276,4	311,2	435,1	246,1	266,7	311,2	435,1	246,1	270,0	311,2	476,3
12	307,3	327,2	374,7	457,2	292,1	323,9	368,3	498,6	292,1	323,9	368,3	520,7	292,1	317,5	368,3	549,4
14	342,9	362,0	406,4	492,3	320,8	355,6	400,1	520,7	320,8	362,0	400,1	577,9				
16	389,9	412,8	463,6	565,2	374,7	412,8	457,2	574,8	368,3	406,4	457,2	641,4				
18	438,2	469,9	527,1	612,9	425,5	463,6	520,7	638,3	425,5	463,6	520,7	704,9				
20	489,0	520,7	577,9	682,8	482,6	520,7	571,5	698,5	476,3	514,4	571,5	755,7				
24	590,6	628,7	685,8	790,7	590,6	628,7	679,5	838,2	577,9	616,0	679,5	901,7				

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Flange gaskets*

Kammprofile gaskets according to EN 1514-6 (2003)

For flanges according to EN 1092-1-2-3-4



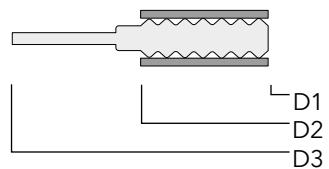
	INNER RING I.D.	O.D. GASKET FACING			O.D. OUTER RING											
	D1	D2			D3											
DN		PN10-40	PN63-160	PN250-400	PN10	PN16	PN25	PN40	PN64	PN100	PN160	PN250	PN320	PN400		
10	22	36	36	36	46	46	46	46	56	56	56	67	67	67		
15	26	42	42	42	51	51	51	51	61	61	61	72	72	-		
20	31	47	47	47	61	61	61	61	-	-	-	-	-	-		
25	36	52	52	52	71	71	71	71	82	82	82	83	92	104		
32	46	62	62	66	82	82	82	82	-	-	-	-	-	-		
40	53	69	69	73	92	92	92	92	103	103	103	109	119	135		
50	65	81	81	87	107	107	107	107	113	113	119	124	134	150		
65	81	100	100	103	127	127	127	127	137	143	143	153	170	192		
80	95	115	115	121	142	142	142	142	148	154	154	170	190	207		
100	118	138	138	146	162	162	168	168	174	180	180	202	229	256		
125	142	162	162	178	192	192	194	194	210	217	217	242	274	301		
150	170	190	190	212	217	217	224	224	247	257	257	284	311	348		
175	195	215	215	245	247	247	254	265	277	287	284	316	358	402		
200	220	240	248	280	272	272	284	290	309	324	324	358	398	442		
250	270	290	300	340	327	328	340	352	364	391	388	442	488	-		
300	320	340	356	400	377	383	400	417	424	458	458	536	-	-		
350	375	395	415	-	437	443	457	474	486	512	-	-	-	-		
400	426	450	474	-	489	495	514	546	543	572	-	-	-	-		
450	480	506	-	-	539	555	-	571	-	-	-	-	-	-		
500	530	560	588	-	594	617	624	628	657	704	-	-	-	-		
600	630	664	700	-	695	734	731	747	764	813	-	-	-	-		
700	730	770	812	-	810	804	833	852	879	950	-	-	-	-		
800	830	876	886	-	917	911	942	974	988	-	-	-	-	-		
900	930	982	994	-	1017	1011	1042	1084	1108	-	-	-	-	-		
1000	1040	1098	1110	-	1124	1128	1154	1194	1220	-	-	-	-	-		
1200	1250	1320	1334	-	1341	1342	1364	1398	1452	-	-	-	-	-		
1400	1440	1522	-	-	1548	1542	1578	1618	-	-	-	-	-	-		
1600	1650	1742	-	-	1772	1764	1798	1830	-	-	-	-	-	-		
1800	1850	1914	-	-	1972	1964	2000	-	-	-	-	-	-	-		
2000	2050	2120	-	-	2182	2168	2230	-	-	-	-	-	-	-		
2200	2250	2328	-	-	2384	2378	-	-	-	-	-	-	-	-		
2400	2460	2512	-	-	2594	-	-	-	-	-	-	-	-	-		
2600	2670	2728	-	-	2794	-	-	-	-	-	-	-	-	-		
2800	2890	2952	-	-	3014	-	-	-	-	-	-	-	-	-		
3000	3100	3166	-	-	3228	-	-	-	-	-	-	-	-	-		

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Flange gaskets*

Kammprofile gaskets according to EN 12560-6 (2003)

For flanges according to EN 1759-1



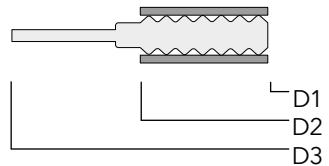
	INNER RING I.D.	O.D. GASKET FACING	O.D. OUTER RING						
			D1	D2	D3				
Inch			150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	1500 lbs	2500 lbs
1/2	23,0	33,3	44,4	50,8	50,8	50,8	60,3	60,3	66,7
3/4	28,6	39,7	53,9	63,5	63,5	63,5	66,7	66,7	73,0
1	36,5	47,6	63,5	69,8	69,8	69,8	76,2	76,2	82,5
1 1/4	44,4	60,3	73,0	79,4	79,4	79,4	85,7	85,7	101,6
1 1/2	52,4	69,8	82,5	92,1	92,1	92,1	95,2	95,2	114,3
2	69,8	88,9	101,6	108,0	108,0	108,0	139,7	139,7	142,8
2 1/2	82,5	101,6	120,6	127,0	127,0	127,0	161,9	161,9	165,1
3	98,4	123,8	133,4	146,1	146,1	146,1	165,1	171,5	193,7
3 1/2	111,1	136,5	158,8	161,9	158,7	158,7	-	-	-
4	123,8	154,0	171,5	177,8	174,6	190,5	203,2	206,4	231,7
5	150,8	182,6	193,7	212,7	209,5	238,1	244,5	250,8	276,2
6	177,8	212,7	219,1	247,7	244,5	263,5	285,8	279,4	314,3
8	228,6	266,7	276,2	304,8	301,6	317,5	355,6	349,3	384,1
10	282,6	320,7	336,5	358,8	355,6	396,9	431,8	431,8	473,0
12	339,7	377,8	406,4	419,1	415,9	454,0	495,3	517,5	546,1
14	371,5	409,6	447,7	482,6	479,4	488,9	517,5	574,7	-
16	422,3	466,7	511,2	536,6	533,4	561,9	571,5	638,1	-
18	479,4	530,2	546,1	593,7	590,5	609,6	635,0	701,7	-
20	530,2	581,0	603,2	650,9	644,5	679,5	695,3	752,4	-
22	581,0	631,8	657,2	701,7	698,5	730,3	-	-	-
24	631,8	682,6	714,4	771,5	765,2	787,4	835,0	898,5	-

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Flange gaskets*

Kammprofile gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5



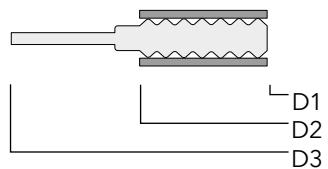
	INNER RING I.D.	O.D. GASKET FACING	O.D. OUTER RING						
	D1	D2	D3						
Inch	150 - 2500	150 - 2500	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	1500 lbs	2500 lbs
1/2"	23,1	33,3	47,8	54,1	54,1	54,1	63,5	63,5	69,9
3/4"	28,7	39,6	57,2	66,8	66,8	66,8	69,9	69,9	76,2
1"	36,6	47,5	66,8	73,2	73,2	73,2	79,5	79,5	85,9
1 1/4"	44,5	60,2	76,2	82,6	82,6	82,6	88,9	88,9	104,9
1 1/2"	52,3	69,9	85,9	95,3	95,3	95,3	98,6	98,6	117,6
2"	69,9	88,9	104,9	111,3	111,3	111,3	143,0	143,0	146,1
2 1/2"	82,6	101,6	124,0	130,3	130,3	130,3	165,1	165,1	168,4
3"	98,3	123,7	136,7	149,4	149,4	149,4	168,4	174,8	196,9
4"	123,7	153,9	174,8	181,1	177,8	193,8	206,5	209,6	235,0
5"	150,9	182,6	196,9	215,9	212,9	241,3	247,7	254,0	279,4
6"	177,8	212,6	222,3	251,0	247,7	266,7	289,1	282,7	317,5
8"	228,6	266,7	279,4	308,1	304,8	320,8	358,9	352,6	387,4
10"	282,7	320,8	339,9	362,0	358,9	400,1	435,1	435,1	476,3
12"	339,6	377,7	409,7	422,4	419,1	457,2	498,6	520,7	549,4
14"	371,6	409,7	450,9	485,9	482,6	492,3	520,7	577,9	-
16"	422,4	466,6	514,4	539,8	536,7	565,2	574,8	641,4	-
18"	479,3	530,1	549,4	596,9	593,9	612,9	638,3	704,9	-
20"	530,1	580,9	606,6	654,1	647,7	682,8	698,5	755,7	-
24"	631,7	682,5	717,6	774,7	768,4	790,7	838,2	901,7	-

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Flange gaskets*

Kammprofile gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.47 Serie A



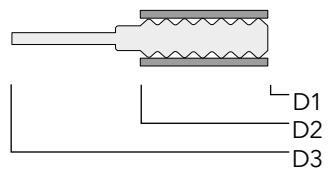
	INNER RING I.D.					O.D. GASKET FACING					O.D. OUTER RING				
	D1					D2					D3				
Inch	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs
26	673,1	685,8	685,8	685,8	685,8	704,9	736,6	736,6	736,6	736,6	774,7	835,2	831,9	866,9	882,7
28	723,9	736,6	736,6	736,6	736,6	755,7	787,4	787,4	787,4	787,4	831,9	898,7	892,3	914,4	946,2
30	774,7	793,8	793,8	793,8	793,8	806,5	844,6	844,6	844,6	844,6	882,7	952,5	946,2	971,6	1009,7
32	825,5	850,9	850,9	850,9	850,9	860,6	901,7	901,7	901,7	901,7	939,8	1006,6	1003,3	1022,4	1073,2
34	876,3	901,7	901,7	901,7	901,7	911,4	952,5	952,5	952,5	952,5	990,6	1057,4	1054,1	1073,2	1136,7
36	927,1	955,8	955,8	955,8	958,9	968,5	1006,6	1006,6	1006,6	1009,7	1047,8	1117,6	1117,6	1130,3	1200,2
38	977,9	977,9	971,6	990,6	1035,1	1019,3	1016,0	1022,4	1041,4	1085,9	1111,3	1054,1	1073,2	1104,9	1200,2
40	1028,7	1022,4	1025,7	1047,8	1098,6	1070,1	1070,1	1076,5	1098,6	1149,4	1162,1	1114,6	1127,3	1155,7	1251,0
42	1079,5	1073,2	1076,5	1104,9	1149,4	1124,0	1120,9	1127,3	1155,7	1200,2	1219,2	1165,4	1178,1	1219,2	1301,8
44	1130,3	1130,3	1130,3	1162,1	1206,5	1178,1	1181,1	1181,1	1212,9	1257,3	1276,4	1219,2	1231,9	1270,0	1368,6
46	1181,1	1178,1	1193,8	1212,9	1270,0	1228,9	1228,9	1244,6	1263,7	1320,8	1327,2	1273,3	1289,1	1327,2	1435,1
48	1231,9	1235,2	1244,6	1270,0	1320,8	1279,7	1286,0	1295,4	1320,8	1371,6	1384,3	1324,1	1346,2	1390,7	1485,9
50	1282,7	1295,4	1295,4	1320,8	-	1333,5	1346,2	1346,2	1371,6	-	1435,1	1378,0	1403,4	1447,8	-
52	1333,5	1346,2	1346,2	1371,6	-	1384,3	1397,0	1397,0	1422,4	-	1492,3	1428,8	1454,2	1498,6	-
54	1384,3	1403,4	1403,4	1428,8	-	1435,1	1454,2	1454,2	1479,6	-	1549,4	1492,3	1517,7	1555,8	-
56	1435,1	1454,2	1454,2	1479,6	-	1485,9	1505,0	1505,0	1530,4	-	1606,6	1543,1	1568,5	1612,9	-
58	1485,9	1511,3	1505,0	1536,7	-	1536,7	1562,1	1555,8	1587,5	-	1663,7	1593,9	1619,3	1663,7	-
60	1536,7	1562,1	1568,5	1593,9	-	1587,5	1612,9	1619,3	1644,7	-	1714,5	1644,7	1682,8	1733,6	-

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Flange gaskets*

Kammprofile gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.47 Serie B



	INNER RING I.D.					O.D. GASKET FACING					O.D. OUTER RING				
	D1					D2					D3				
Inch	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs	150 lbs	300 lbs	400 lbs	600 lbs	900 lbs
26	673,1	673,1	666,8	663,7	692,2	698,5	711,2	698,5	714,5	749,3	725,4	771,7	746,3	765,3	838,2
28	723,9	723,9	714,5	704,9	743,0	749,3	762,0	749,3	755,7	800,1	776,2	825,5	800,1	819,2	901,7
30	774,7	774,7	765,3	778,0	806,5	800,1	812,8	806,5	828,8	857,3	827,0	886,0	857,3	879,6	958,9
32	825,5	825,5	812,8	831,9	863,6	850,9	863,6	860,6	882,7	914,4	881,1	939,8	911,4	933,5	1016,0
34	876,3	876,3	866,9	889,0	920,8	908,1	914,4	911,4	939,8	971,6	935,0	993,9	962,2	997,0	1073,2
36	927,1	927,1	917,7	939,8	946,2	958,9	965,2	965,2	990,6	997,0	987,6	1047,8	1022,4	1047,8	1124,0
38	974,9	1009,7	971,6	990,6	1035,1	1009,7	1047,8	1022,4	1041,4	1085,9	1044,7	1098,6	1073,2	1104,9	1200,2
40	1022,4	1060,5	1025,7	1047,8	1098,6	1063,8	1098,6	1076,5	1098,6	1149,4	1095,5	1149,4	1127,3	1155,7	1251,0
42	1079,5	1111,3	1076,5	1104,9	1149,4	1114,6	1149,4	1127,3	1155,7	1200,2	1146,3	1200,2	1178,1	1219,2	1301,8
44	1124,0	1162,1	1130,3	1162,1	1206,5	1165,4	1200,2	1181,1	1212,9	1257,3	1197,1	1251,0	1231,9	1270,0	1368,6
46	1181,1	1216,2	1193,8	1212,9	1270,0	1224,0	1254,3	1244,6	1263,7	1320,8	1255,8	1317,8	1289,1	1327,2	1435,1
48	1231,9	1263,7	1244,6	1270,0	1320,8	1270,0	1311,4	1295,4	1320,8	1371,6	1306,6	1368,6	1346,2	1390,7	1485,9
50	1282,7	1317,8	1295,4	1320,8	-	1325,6	1355,9	1346,2	1371,6	-	1357,4	1419,4	1403,4	1447,8	-
52	1333,5	1368,6	1346,2	1371,6	-	1376,4	1406,7	1397,0	1422,4	-	1408,2	1470,2	1454,2	1498,6	-
54	1384,3	1403,4	1403,4	1428,8	-	1422,4	1454,2	1454,2	1479,6	-	1463,8	1530,4	1517,7	1555,8	-
56	1444,8	1479,6	1454,2	1479,6	-	1478,0	1524,0	1505,0	1530,4	-	1514,6	1593,9	1568,5	1612,9	-
58	1500,6	1535,2	1505,0	1536,7	-	1528,8	1573,3	1555,8	1587,5	-	1579,6	1655,8	1619,3	1663,7	-
60	1557,3	1589,0	1568,5	1593,9	-	1586,0	1630,4	1619,3	1644,7	-	1630,4	1706,6	1682,8	1733,6	-

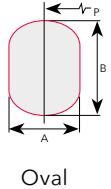
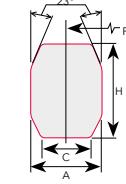
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Flange gaskets*

Ring-Joint-Gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5

Ring-Nr.	NPS	Class	P	A	B	H	C
R-11	1/2	300 - 600	34,14	6,35	11,2	9,7	4,32
R-12	1/2	900 - 1.500	39,70	7,95	14,2	12,7	5,23
R-13	1/2	2.500	42,88	7,95	14,2	12,7	5,23
	3/4	300 - 600					
R-14	3/4	900 - 1.500	44,45	7,95	14,2	12,7	5,23
R-15	1	150	47,63	7,95	14,2	12,7	5,23
	3/4	2.500	50,80	7,95	14,2	12,7	5,23
R-16	1	300 - 1.500					
	1	2.000, 3.000 + 5.000					
R-17	1 1/4	150	57,15	7,95	14,2	12,7	5,23
	1	2.500	60,33	7,95	14,2	12,7	5,23
R-18	1 1/4	300 - 1.500					
	1 1/4	2.000, 3.000 + 5.000					
R-19	1 1/2	150	65,10	7,95	14,2	12,7	5,23
R-20	1 1/2	300 - 1.500	68,28	7,95	14,2	12,7	5,23
	1 1/2	2.000, 3.000 + 5.000					
R-21	1 1/4	2.500	72,24	11,13	17,5	16,0	7,75
R-22	2	150	82,55	7,95	14,2	12,7	5,23
	1 1/2	2.500	82,55	11,13	17,5	16,0	7,75
R-23	2	300 - 600					
	2	2.000					
R-24	2	900 - 1.500	95,25	11,13	17,5	16,0	7,75
	2	3.000 + 5.000					
R-25	2 1/2	150	101,60	7,95	14,2	12,7	5,23
	2	2.500	101,60	11,13	17,5	16,0	7,75
R-26	2 1/2	300 - 600					
	2 1/2	2.000					
R-27	2 1/2	900 - 1.500	107,95	11,13	17,5	16,0	7,75
	2 1/2	3.000 + 5.000					
R-28	2 1/2	2.500	111,13	12,70	19,1	17,5	8,66
R-29	3	150	114,30	7,95	14,2	12,7	5,23
R-30**	3	3 - 600	117,48	11,13	17,5	16,0	7,75
R-31	3	300 - 900	123,83	11,13	17,5	16,0	7,75
	3	2.000 + 3.000					
R-32	3	2.500	127,00	12,70	19,1	17,5	8,66
R-33	3 1/2	150	131,78	7,95	14,2	12,7	5,23
R-34	3 1/2	300 - 600	131,78	11,13	17,5	16,0	7,75
	3	1.500	136,53	11,13	17,5	16,0	7,75
R-35	3	5.000					
R-36	4	150	149,23	7,95	14,2	12,7	5,23
	3 1/2	5.000	149,23	11,13	17,5	16,0	7,75
R-37	4	300 - 900					
	4	2.000 + 3.000					
R-38	4	2.500	157,18	15,88	22,4	20,6	10,49
R-39	4	1.500 + 5.000	161,93	11,13	17,5	16,0	7,75
R-40	5	150	171,45	7,95	14,2	12,7	5,23
	5	300 - 900	180,98	11,13	17,5	16,0	7,75
R-41	5	2.000 + 3.000					
R-42	5	2.500	190,50	19,05	25,4	23,9	12,32
R-43	6	150	193,68	7,95	14,2	12,7	5,23
R-44	5	1.500 + 5.000	193,68	11,13	17,5	16,0	7,75
R-45	6	300 - 900	211,15	11,13	17,5	16,0	7,75
	6	2.000 + 3.000					
R-46	6	1.500 + 5.000	211,15	12,70	19,1	17,5	8,66
R-47	6	2.500	228,60	19,05	25,4	23,9	12,32
R-48	8	150	247,65	7,95	14,2	12,7	5,23
	8	300 - 900	269,88	11,13	17,5	16,0	7,75
R-49	8	2.000 + 3.000					
R-50	8	1.500 + 5.000	269,88	15,88	22,4	20,6	10,49
R-51	8	2.500	279,40	22,23	28,7	26,9	14,81
R-52	10	150	304,80	7,95	14,2	12,7	5,23
	10	300 - 900	323,85	11,13	17,5	16,0	7,75
R-53	10	2.000 + 3.000					
R-54	10	1.500 + 5.000	323,85	15,88	22,4	20,6	10,49
R-55	10	2.500	342,90	28,58	36,6	35,1	19,81



** R 30 only for specialised flange

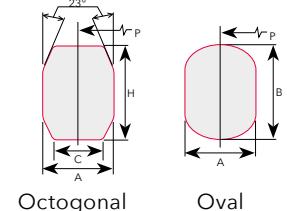
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Flange gaskets*

Ring-Joint-Gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5

Ring-Nr.	NPS	Class	P	A	B	H	C
R-56	12	150	381,00	7,95	14,2	12,7	5,23
R-57	12	300 - 900	381,00	11,13	17,5	16,0	7,75
	12	2.000 + 3.000					
R-58	12	1.500	381,00	22,23	28,7	26,9	14,81
R-59	14	150	396,88	7,95	14,2	12,7	5,23
R-60	12	2.500	406,40	31,75	39,6	38,1	22,33
	14	300 - 600	419,10	11,13	17,5	16,0	7,75
R-61	14	2.000 + 3.000					
R-62	14	900	419,10	15,88	22,4	20,6	10,49
R-63	14	1.500	419,10	25,40	33,3	31,8	17,30
R-64	16	150	454,03	7,95	14,2	12,7	5,23
R-65	16	300 - 600 und 2.000	469,90	11,13	17,5	16,0	7,75
R-66	16	900 + 3.000	469,90	15,88	22,4	20,6	10,49
R-67	16	1.500	469,90	28,58	36,6	35,1	19,81
R-68	18	150	517,53	7,95	14,2	12,7	5,23
R-69	18	300 - 600 und 2.000	533,40	11,13	17,5	16,0	7,75
R-70	18	900 + 3.000	533,40	19,05	25,4	23,9	12,32
R-71	18	1.500	533,40	28,58	36,6	35,1	19,81
R-72	20	150	558,80	7,95	14,2	12,7	5,23
R-73	20	300 - 600 und 2.000	584,20	12,70	19,1	17,5	8,66
R-74	20	900 + 3.000	584,20	19,05	25,4	23,9	12,32
R-75	20	1.500	584,20	31,75	39,6	38,1	22,33
R-76	24	150	673,10	7,95	14,2	12,7	5,23
R-77	24	300 - 600	692,15	15,88	22,4	20,6	10,49
R-78	24	900	692,15	25,40	33,3	31,8	17,30
R-79	24	1.500	692,15	34,93	44,5	41,4	24,82
R-80			615,95	7,95	...	12,7	5,23
R-81			635,00	14,30	...	19,1	9,58
R-82**	1	10.000	57,15	11,13	...	16,0	7,75
R-84**	1 1/2	10.000	63,50	11,13	...	16,0	7,75
R-85**	2	10.000	79,38	12,70	...	17,5	8,66
R-86**	2 1/2	10.000	90,50	15,88	...	20,6	10,49
R-87**	3	10.000	100,03	15,88	...	20,6	10,49
R-88**	4	10.000	123,83	19,05	...	23,9	12,32
R-89**	3 1/2	10.000	114,30	19,05	...	23,9	12,32
R-90**	5	10.000	155,58	22,23	...	26,9	14,81
R-91**	10	10.000	260,35	31,75	...	38,1	22,33
R-92			228,60	11,13	17,5	16,0	7,75



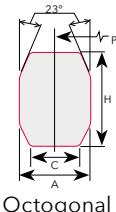
** Obsolete –
for information only

Flange gaskets*

Ring-Joint-Gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.47 Serie A

Ring-Nr.	NPS	Class	P	A	B	H	C
R-93	26	300 - 600	749,30	19,05	...	23,9	12,32
R-94	28	300 - 600	800,10	19,05	...	23,9	12,32
R-95	30	300 - 600	857,25	19,05	...	23,9	12,32
R-96	32	300 - 600	914,40	22,23	...	26,9	14,81
R-97	34	300 - 600	965,20	22,23	...	26,9	14,81
R-98	36	300 - 600	1022,35	22,23	...	26,9	14,81
R-99	8	2.000 + 3.000	234,95	11,13	...	16,0	7,75
R-100	26	900	749,30	28,58	...	35,1	19,81
R-101	28	900	800,10	31,75	...	38,1	22,33
R-102	30	900	857,25	31,75	...	38,1	22,33
R-103	32	900	914,40	31,75	...	38,1	22,33
R-104	34	900	965,20	34,93	...	41,4	24,82
R-105	36	900	1022,35	34,93	...	41,4	24,82



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Chemical resistance guide

Comparison of media resistance of most common gasket sealing materials mentioned in this brochure.

There are four different cases:

A	1. Suitable
B	2. Depends on conditions
C	3. Not suitable
-	4. No data available

In case of resistance result is B, resistance depending on operating conditions, consult the engineers of Leader Gasket Technologies.

The following media resistance list should give an overview. For media that are not included in this list, you are advised to contact the engineering team of the Leader group.

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Acetaldehyde	-	-	-	B	A	A	A	A
Acetamide	A	A	A	B	A	A	A	A
Acetic Acid	-	-	-	A	A	A	A	A
Acetic Acid Glacial	-	-	-	A	A	A	A	A
Acetic Anhydride	-	-	-	-	A	A	A	A
Acetone	A	-	A	B	A	A	A	A
Acetonitrile	-	-	-	-	A	A	A	A
Acetyl Chloride	-	-	-	-	A	A	A	A
Acetylene	A	A	A	B	A	A	A	A
Acrylic Acid	A	A	A	-	A	A	A	A
Acrylonitrile	A	A	A	-	A	A	A	A
Adipic Acid	A	A	A	A	A	A	A	A
Air	-	-	-	A	A	A	A	A
Allyl Chloride	-	-	-	-	A	A	A	A
Alum	A	B	A	A	A	A	A	A
Aluminium Acetate	A	A	A	A	A	A	A	A
Aluminium chlorate	A	A	A	A	-	-	-	-
Aluminium Chloride	A	C	A	A	A	A	A	A
Aluminium Hydroxide	-	-	-	-	A	A	A	A
Aluminium Sulphate	A	B	A	-	A	A	A	A
Aluminum fluoride	A	C	A	-	-	-	-	-
Ammonia	A	A	A	A	-	-	-	-
Ammonia Gas	A	A	A	A	A	A	A	A
Ammonium bifluoride	A	A	A	-	-	-	-	-
Ammonium Carbonate	A	A	A	A	A	A	A	A
Ammonium Chloride	A	B	A	A	A	A	A	A
Ammonium diphosphate	A	A	A	A	-	-	-	-
Ammonium fluoride	A	A	A	-	-	-	-	-
Ammonium Hydroxide	A	A	A	A	A	A	A	A
Ammonium Sulphate	-	-	-	-	A	A	A	A
Amyl Acetate	A	A	A	A	A	A	A	A
Amyl Alcohol	A	A	A	-	A	A	A	A
Aniline (aminobenzene)	A	A	A	B	A	A	A	A
Aqua Regia	C	C	A	-	A	A	A	A
Arcton 12	-	-	-	C	-	-	-	-
Arcton 22	-	-	-	C	-	-	-	-
Asphalt	-	-	-	A	A	A	A	A
Aviation Fuel	-	-	-	-	A	A	A	A
Barium Chloride	A	A	A	A	A	A	A	A
Barium salt, aqueous	A	A	A	-	-	-	-	-
Benzaldehyde	-	-	-	-	A	A	A	A
Benzene	A	A	A	B	A	A	A	A
Benzoic Acid	A	A	A	A	A	A	A	A
Benzonitrile	-	-	-	-	A	A	A	A
Benzyl Alcohol	-	-	-	-	A	A	A	A
Benzyl Chloride	A	A	B	-	A	A	A	A
Black liquor (sulfate)	A	-	A	-	-	-	-	-

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Black liquor (sulfide)	A	-	A	-	-	-	-	-
Blast Furnace Gas	-	-	-	A	A	A	A	A
Bleach (solution)	A	B	A	A	A	A	A	A
Boiler Feed Water	-	-	-	-	A	A	A	A
Borax	A	A	A	A	A	A	A	A
Boric Acid	A	A	A	A	A	A	A	A
Brine	-	-	-	-	A	A	A	A
Bromine	C	C	A	-	A	A	A	A
Bromine trifluoride	C	C	C	-	-	-	-	-
Butadiene	A	A	A	-	A	A	A	A
Butane	A	A	B	-	A	A	A	A
Butanol	A	A	A	B	A	A	A	A
Butanone (methyl ethyl ketone)	A	A	A	B	-	-	-	-
Butyl Acetate	A	A	A	B	A	A	A	A
Butyl Alcohol	-	-	-	B	A	A	A	A
Butyl amine	A	A	A	B	-	-	-	-
Butyl Methacrylate	-	-	-	-	A	A	A	A
Butylphenol	A	A	A	-	-	-	-	-
Butyric Acid	A	A	A	B	A	A	A	A
Calcium Chloride	A	B	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A	A	A
Calcium Hypochlorite	A	B	A	A	A	A	A	A
Calcium oxide	A	A	A	-	-	-	-	-
Calcium Sulphate	A	A	A	A	A	A	A	A
Carbamide (urea)	A	A	A	-	-	-	-	-
Carbolic Acid	A	A	A	-	A	A	A	A
Carbon Dioxide	A	A	A	A	A	A	A	A
Carbon Disulphide	A	A	A	B	A	A	A	A
Carbon hydride	A	A	A	-	-	-	-	-
Carbon Monoxide	-	-	-	-	A	A	A	A
Carbon Tetrachloride	A	A	A	B	A	A	A	A
Castor Oil	-	-	-	A	A	A	A	A
Caustic potash solution, liquid	A	A	A	-	-	-	-	-
Caustic Soda < 25%	A	C	A	-	C	B	A	A
Caustic Soda < 50%	A	C	A	-	C	B	A	A
Caustic Soda > 50%	A	C	A	-	C	B	A	A
Cesium melt	-	-	C	-	-	-	-	-
Chlorine (Dry)	A	A	A	B	A	A	A	A
Chlorine (Wet)	C	C	A	-	A	A	A	A
Chlorine bleach liquor	A	C	A	-	-	-	-	-
Chlorine Dioxide	C	C	A	-	A	A	A	A
Chlorine Liquid	C	C	A	-	A	A	A	A
Chlorine trifluoride	C	C	C	-	-	-	-	-
Chloroacetic Acid	A	C	A	-	A	A	A	A
Chlorobezene	A	A	A	-	A	A	A	A
Chloroform	A	A	A	B	A	A	A	A
Chloromethane (methyl chloride)	A	A	A	B	-	-	-	-
Chlortriflouride	-	-	-	-	C	C	C	C
Chromic Acid	A	A	A	B	A	A	A	A
Chroming solutions	B	B	-	-	-	-	-	-
Citric Acid	-	-	-	A	A	A	A	A
Condensation Water	-	-	-	A	A	A	A	A
Copper Acetate	A	A	A	A	A	A	A	A
Copper Sulphate	A	A	A	A	A	A	A	A
Creosote	-	-	-	-	A	A	A	A
Cresol	A	A	A	A	A	A	A	A
Crude Oil	-	-	-	A	A	A	A	A
Cyclohexane	A	A	A	-	A	A	A	A
Cyclohexanol	A	A	A	A	A	A	A	A
Cyclohexanone	A	A	A	B	A	A	A	A
Decalin (decahydronaphthalene)	A	A	A	A	-	-	-	-
Di-Benzyl Ether	A	A	A	B	A	A	A	A
Dibutyl Phthalate	A	A	A	A	A	A	A	A
Diesel Oil	A	A	A	-	A	A	A	A
Diethanolamine	-	-	-	-	A	A	A	A
Diethyl ketone (3-Pentanone)	A	A	A	-	-	-	-	-
Diethylamine	-	-	-	-	A	A	A	A
Di-iso Butyl Ketone	-	-	-	-	A	A	A	A

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Dimethyl Formamide	A	A	A	-	A	A	A	A
Dimethylamine	A	A	A	-	A	A	A	A
Dioxane	A	A	A	-	A	A	A	A
Diphenyl (biphenyl)	A	A	A	-	-	-	-	-
Diphyl (Dowtherm A)	-	-	-	A B	A	A	A	A
Dithiophosphoric acid	A	-	A	-	-	-	-	-
Ethane	A	A	A	A	A	A	A	A
Ethanoic acid (pure acetic acid)	A	B	A	-	-	-	-	-
Ethanol	A	A	A	B	A	A	A	A
Ethyl Acetate	A	A	A	B	A	A	A	A
Ethyl Acrylate	-	-	-	-	A	A	A	A
Ethyl Alcohol	A	A	A	B	A	A	A	A
Ethyl Chloride (Dry)	A	A	A	B	A	A	A	A
Ethyl Ether	A	A	A	B	A	A	A	A
Ethylbenzene	-	-	-	-	A	A	A	A
Ethylene	A	A	A	B	A	A	A	A
Ethylene Chloride	A	A	A	B	A	A	A	A
Ethylene diamine	A	A	A	B	-	-	-	-
Ethylene Glycol	A	A	A	A	A	A	A	A
Ethylene oxide	A	A	C	-	-	-	-	-
Fatty acids	-	-	-	A	-	-	-	-
Fatty alcohols	A	A	A	-	-	-	-	-
Fluorine benzene	A	A	A	-	-	-	-	-
Fluorine Dioxide	C	C	C	-	C	C	C	C
Fluorine Gaseous	-	-	-	-	C	C	C	C
Fluorine hydrogen chloride	A	A	B	-	-	-	-	-
Fluorine Liquid	C	C	C	-	C	C	C	C
Fluorine, gaseous	B	C	C	-	-	-	-	-
Fluoroboric acid (borofluoric acid)	C	C	A	-	-	-	-	-
Fluorocarbon (hydrofluorocarbons)	A	A	A	-	-	-	-	-
Fluorosilicic acid (HF)	-	-	A	-	-	-	-	-
Fluosilic acid	A	-	A	-	-	-	-	-
Formaldehyde	A	A	A	B	A	A	A	A
Formamide	A	A	A	-	A	A	A	A
Formic Acid 10%	A	B	A	A	A	A	A	A
Formic Acid 85%	-	-	-	B	A	A	A	A
Freon 12	-	-	-	C	-	-	-	-
Freon 22	-	-	-	C	-	-	-	-
Fuel Oil	-	-	-	A	A	A	A	A
Gas (LPG)	-	-	-	-	A	A	A	A
Gas (Natural Gas)	-	-	-	-	A	A	A	A
Gas Oil	-	-	-	-	A	A	A	A
Gasoline	A	A	A	B	A	A	A	A
Generator Gas	-	-	-	-	A	A	A	A
Glucose	-	-	-	-	A	A	A	A
Glycerine	A	A	A	A	A	A	A	A
Glycol	A	A	A	-	A	A	A	A
Heating Oil	-	-	-	B	A	A	A	A
Heptane	A	A	A	-	A	A	A	A
Hexachloro benzene	-	-	-	A	-	-	-	-
Hexamine (Urotropine)	A	-	-	-	-	-	-	-
Hexane	-	-	-	-	A	A	A	A
Hydraulic Oil	-	-	-	-	A	A	A	A
Hydraulic oil	A	A	A	A	-	-	-	-
Hydrazine	A	A	A	-	-	-	-	-
Hydrazine hydrate	A	A	A	A	-	-	-	-
Hydrochloric acid (aqueous)	A	C	A	A	-	-	-	-
Hydrochloric acid (dry)	A	C	A	A	-	-	-	-
Hydrochloric Acid 20%	A	C	A	A	A	A	A	A
Hydrochloric Acid 37%	A	C	A	A	A	A	A	A
Hydrocyanic acid	A	A	A	-	-	-	-	-
Hydrofluoric Acid <65%	A	C	A	-	C	C	A	A
Hydrofluoric Acid >65%	-	-	-	-	C	C	B	A
Hydrofluorosilic Acid	-	A	A	-	C	C	B	B
Hydrogen	-	-	-	A	A	A	A	A
Hydrogen Chloride (Dry)	A	C	A	-	A	A	A	A
Hydrogen Flouride	A	C	A	B	C	C	C	A
Hydrogen Peroxide (6%)	B	A	A	A	A	A	A	A
Hydrogen Sulphide	A	B	A	-	A	A	A	A
Hydrosilicic fluoric acid	A	-	A	-	-	-	-	-

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Hydrosilico fluoride	A	-	A	-	-	-	-	-
Iodine	A	A	A	-	-	-	-	-
Isoctane	A	A	A	A	A	A	A	A
Isopropyl Acetate	-	-	-	-	A	A	A	A
Isopropyl Alcohol	A	A	A	B	A	A	A	A
Isopropyl Ether	-	-	-	-	A	A	A	A
Kerosene	A	A	A	A	A	A	A	A
Kerosine	A	A	A	-	-	-	-	-
Ketone	A	A	A	-	-	-	-	-
Lactic Acid	A	B	A	A	A	A	A	A
Lauryl alcohol	A	A	A	-	-	-	-	-
Lead acetate	A	A	A	A	-	-	-	-
Lead arsenate	A	A	A	A	-	-	-	-
Lime water	A	A	A	-	-	-	-	-
Linseed Oil	-	-	-	A	A	A	A	A
Liquid Petroleum Gas	-	-	-	-	A	A	A	A
Lithium bromide	A	A	A	-	-	-	-	-
Lithium melt	-	-	C	-	-	-	-	-
Lubricating Oil	-	-	-	-	A	A	A	A
Luminescent gas	-	-	-	B	-	-	-	-
Machine Oil	-	-	-	-	A	A	A	A
Magnesium hydroxide	A	A	A	-	-	-	-	-
Magnesium Sulphate	A	A	A	A	A	A	A	A
Maleic Acid	A	A	A	A	A	A	A	A
Maleic Anhydride	A	A	A	-	A	A	A	A
Methane	A	A	A	B	A	A	A	A
Methanol	A	A	A	B	A	A	A	A
Methyl Alcohol	A	A	A	B	A	A	A	A
Methyl Chloride	-	-	-	B	A	A	A	A
Methyl Ethyl Ketone	-	-	-	B	A	A	A	A
Methyl Methacrylate	-	-	-	-	A	A	A	A
Methylated Spirits	-	-	-	-	A	A	A	A
Methylene Chloride	A	B	B	B	A	A	A	A
Mineral Oil	-	-	-	A	A	A	A	A
Mobiltherm 600	-	-	-	-	A	A	A	A
Mobiltherm 603/605	-	-	-	-	A	A	A	A
Molten Alkali Metals	-	-	-	-	C	C	C	C
Morpholine	A	-	A	-	-	-	-	-
Motor Oil	-	-	-	-	A	A	A	A
Naphtha	A	-	A	-	A	A	A	A
Naphthalene	A	-	A	-	A	A	A	A
Natural Gas	A	A	A	B	A	A	A	A
Nickel Chloride	-	-	-	-	A	A	A	A
Nickel Sulphate	-	-	-	-	A	A	A	A
Nitric Acid < 30%	B	C	A	A	A	A	A	A
Nitric Acid > 30%	B	C	A	A	A	A	A	A
Nitric Acid Red Fuming	-	-	-	-	A	A	A	A
Nitrobenzene	A	A	A	A	-	-	-	-
Nitrogen	-	-	-	-	A	A	A	A
Octane	A	A	A	A	A	A	A	A
Oil	A	A	A	-	-	-	-	-
Oleic Acid	A	A	A	A	A	A	A	A
Oleum	C	C	A	A	A	A	C	A
Oxalic Acid	A	C	A	A	A	A	A	A
Oxygen	A	A	A	A	A	C	A	A
Paint thinner	-	-	-	A	-	-	-	-
Palmitic Acid	A	A	A	A	A	A	A	A
Paraffin	-	-	-	-	A	A	A	A
p-dihydroxybenzene	A	-	A	-	-	-	-	-
Pentane	A	A	A	A	A	A	A	A
Perchloric Acid	B	C	A	-	A	A	A	A
Perchloro ethylene	A	A	A	B	A	A	A	A
Petrol ether	-	-	-	B	-	-	-	-
Petroleum	A	A	A	A	A	A	A	A
Phenol	A	A	A	A	A	A	A	A
Phosgene	A	A	A	-	A	A	A	A
Phosphoric Acid < 45%	A	A	A	A	A	A	A	A
Phosphoric Acid > 45%	A	B	A	A	B	B	A	A
Phosphoric acid, impure	A	B	A	-	-	-	-	-
Phthalic Acid	A	A	A	A	A	A	A	A

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Phthalic Anhydride	-	-	-	-	A	A	A	A
Polychlorinated biphenyl (Clophen)	A	A	A	-	-	-	-	-
Potassium Acetate	A	A	A	A	A	A	A	A
Potassium bifluorine, saturated	A	A	A	-	-	-	-	-
Potassium Carbonate	A	A	A	A	A	A	A	A
Potassium Chlorate	C	A	A	A	A	A	A	A
Potassium Chloride	A	A	A	A	A	A	A	A
Potassium chromate	B	C	A	-	-	-	-	-
Potassium chrome sulfate	-	C	A	A	-	-	-	-
Potassium Cyanide	A	A	A	A	A	A	A	A
Potassium Dichromate <20%	-	-	-	A	A	A	A	A
Potassium Hydroxide < 50%	A	A	A	A	C	C	A	A
Potassium Hydroxide >50%	A	A	A	A	C	C	A	A
Potassium Hypochlorite	A	C	A	A	A	A	A	A
Potassium iodide	A	A	A	A	-	-	-	-
Potassium melt up to 350 °C	A	-	C	-	-	-	-	-
Potassium Nitrate	C	C	A	A	A	A	A	A
Potassium nitrate (melt)	C	C	C	-	-	-	-	-
Potassium Permanganate	A	A	A	A	A	A	A	A
Potassium silicate	A	A	A	-	-	-	-	-
Producer Gas	-	-	-	-	A	A	A	A
Propane	A	A	A	A	A	A	A	A
Pyridine	A	A	A	B	A	A	A	A
Rape Seed Oil	-	-	-	A	A	A	A	A
Refrigerant R11	-	-	-	-	A	A	A	A
Refrigerant R112	-	-	-	-	A	A	A	A
Refrigerant R113	-	-	-	-	A	A	A	A
Refrigerant R114	-	-	-	-	A	A	A	A
Refrigerant R114B2	-	-	-	-	A	A	A	A
Refrigerant R115	-	-	-	-	A	A	A	A
Refrigerant R12	-	-	-	-	A	A	A	A
Refrigerant R123	-	-	-	-	A	A	A	A
Refrigerant R125	-	-	-	-	A	A	A	A
Refrigerant R13	-	-	-	-	A	A	A	A
Refrigerant R134A	-	-	-	-	A	A	A	A
Refrigerant R13B1	-	-	-	-	A	A	A	A
Refrigerant R141A	-	-	-	-	A	A	A	A
Refrigerant R141B	-	-	-	-	A	A	A	A
Refrigerant R152A	-	-	-	-	A	A	A	A
Refrigerant R22	-	-	-	-	A	A	A	A
Refrigerant R402A	-	-	-	-	A	A	A	A
Refrigerant R402B	-	-	-	-	A	A	A	A
Refrigerant R404A	-	-	-	-	A	A	A	A
Refrigerant R502	-	-	-	-	A	A	A	A
Refrigerant R507	-	-	-	-	A	A	A	A
Salicylic Acid	-	-	-	-	A	A	A	A
Salicylic acid	A	A	A	A	-	-	-	-
Santotherm 66	-	-	-	-	A	A	A	A
Sea Water	-	-	-	A	A	A	A	A
Silicone Oil	-	-	-	A	A	A	A	A
Silver Nitrate	-	-	-	-	A	A	A	A
Skydrole 500	-	-	-	A	-	-	-	-
Soap	-	-	-	A	A	A	A	A
Soda	A	A	A	-	-	-	-	-
Sodium acetate	A	A	A	-	-	-	-	-
Sodium Aluminate	A	-	A	A	A	A	A	A
Sodium ammonium hydrogen phosphate	A	A	A	-	-	-	-	-
Sodium Bicarbonate	A	A	A	A	A	A	A	A
Sodium Bisulphite	A	A	A	A	A	A	A	A
Sodium carbonate	A	A	A	A	-	-	-	-
Sodium Chloride	A	B	A	A	A	A	A	A
Sodium cyanide	A	A	A	A	-	-	-	-
Sodium hexafluoroaluminate / cryolite	A	-	A	-	-	-	-	-
Sodium Hydroxide < 25%	A	C	A	A	C	B	A	A
Sodium Hydroxide < 50%	A	C	A	A	C	B	A	A
Sodium Hydroxide > 50%	A	C	A	A	C	B	A	A
Sodium hypochlorite	A	C	A	-	-	-	-	-
Sodium melt up to 350 °C	A	-	C	-	-	-	-	-
Sodium phosphate, bibasic	A	A	A	-	-	-	-	-
Sodium phosphate, tribasic	A	A	A	-	-	-	-	-

	Graphite Foil	SS316	PTFE	Leader THERM	Clipperlon 2100	Clipperlon 2110	Clipperlon 2120	Clipperlon 2130
Sodium Silicate	A	A	A	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A	A	A	A
Sodium Sulphide	A	B	A	A	A	A	A	A
Starch	-	-	-	A	A	A	A	A
Steam	-	-	-	A	A	A	A	A
Stearic Acid	A	A	A	A	A	A	A	A
Styrene	A	A	C	-	A	A	A	A
Sugar	-	-	-	A	A	A	A	A
Sulphur	-	-	-	-	A	A	A	A
Sulphur Dioxide Dry	A	A	A	A	A	A	A	A
Sulphur Trioxide	C	C	A	-	A	A	A	A
Sulphuric Acid 30%	A	C	A	C	A	A	A	A
Sulphuric Acid 50%	A	C	A	C	A	A	A	A
Sulphuric Acid 96%	A	C	A	C	A	A	B	A
Sulphuric Acid Fuming	C	C	A	-	A	B	C	A
Sulphurous Acid	A	B	A	A	A	A	A	A
Tannic Acid	A	A	A	A	A	A	A	A
Tannin	A	A	A	-	-	-	-	-
Tar	-	-	-	A	A	A	A	A
Tartaric Acid	-	-	-	A	A	A	A	A
Tetrachloro ethane	A	A	A	B	A	A	A	A
Tetrafluor boric acid (HF)	A	C	A	-	-	-	-	-
Tetraline	A	A	A	A	-	-	-	-
Thermal Oil	-	-	-	-	A	A	A	A
Toluene	A	A	A	A	A	A	A	A
Transformer Oil	-	-	-	A	A	A	A	A
Transmission Oil	-	-	-	-	A	A	A	A
Tricalcium phosphate	A	A	A	-	-	-	-	-
Trichlorethylene	A	A	A	B	A	A	A	A
Trichlorotrifluoroethane (F113)	A	A	B	-	-	-	-	-
Triethanolamine	A	-	A	A	A	A	A	A
Triethylene aluminium	A	-	C	-	-	-	-	-
Triethylenetetramine	A	-	A	-	-	-	-	-
Trisodium phosphate	A	A	A	-	-	-	-	-
Turpentine	A	A	A	A	A	A	A	A
Urea	-	-	-	A	A	A	A	A
Vegetable Oil	-	-	-	-	A	A	A	A
Vinyl Acetate	-	-	-	A	A	A	A	A
Vinyl Bromide	-	-	-	-	A	A	A	A
Vinyl Chloride	A	-	A	-	A	A	A	A
Water	-	-	-	A	A	A	A	A
White Spirit	-	-	-	-	A	A	A	A
Xylene	-	-	-	A	A	A	A	A
Zinc Chloride	-	-	-	-	A	A	A	A
Zinc Sulphate	-	-	-	-	A	A	A	A

The above information in this document corresponds to the current state of our knowledge and is intended to inform about our products and their potential applications. It is therefore not intended to assure certain properties for a specific purpose. Any existing industrial property rights are to be taken into account. We guarantee perfect quality within the framework of our general terms and conditions of sale".

Profile overview

LEADER SPIRAL WOUND GASKETS		
Drawing	Style	Description
	S	without inner or outer ring
	SR	with outer ring
	SI	with inner ring
	SRI	with inner or outer ring

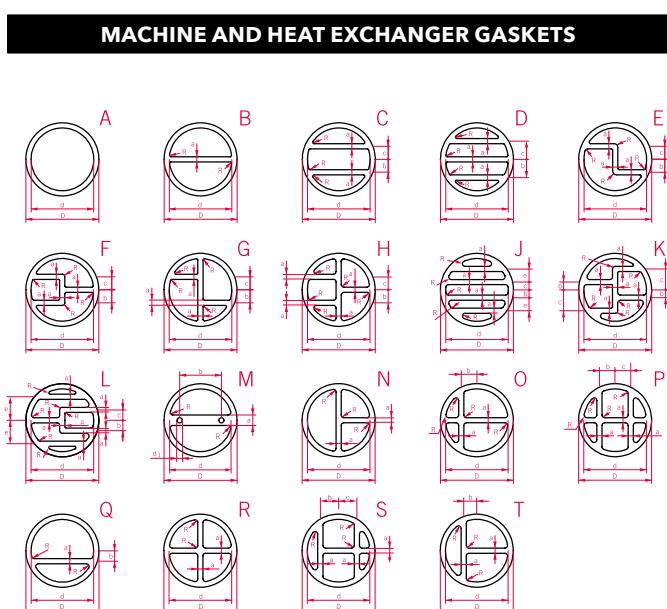
LEADER CORRUGATED GASKET		
Drawing	Style	Description
	CG4	fully faced
	CG4	with eyelet
	CG41	part - faced
	G3	cord facing

LEADERKAM KAMM PROFILE GASKET		
Drawing	Style	Description
	KV	without centering rim
	KV9	with machined centering rim
	KV9L	with loose centering rim
	KV9S	with centering rim and snap ring
	KVH	with centering hook
	KB	crowned, without centering rim
	KB9	crowned, with machined centering rim
	KB9L	crowned, with machined centering rim
	KB9S	crowned, with centering rim and snap ring

LEADER RTJ GASKETS		
Drawing	Style	Description
	OV	Oval
	OC	Octagonal
	RX	RX
	BX	BX

LEADER SMOOTH SHEET METAL GASKETS		
Drawing	Style	Description
	MRG	Steel carrier/Graphite

LEADER METAL JACKETED GASKETS		
Drawing	Style	Description
	Z9	Flat, closed
	GG3	Corrugated, closed
	Z3	External, open
	Z13	Top, open





Leader Gasket 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 Gasket Technologies' specifications as a standard. Only products which are installed and used in accordance with applicable Leader Gasket Technologies instructions and specifications are in any way warranted by Leader Gasket Technologies. This warranty is applicable only to claims made in writing and reviewed by Leader Gasket 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 Gasket 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 Gasket Technologies.

Leader Gasket Technologies makes no other representation or warranty of any kinds, 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 Gasket Technologies. Without an express written authorization from Leader Gasket Technologies, no retailer or distributor of Leader Gasket Technologies has the authority to modify or amend the limited warranty.

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