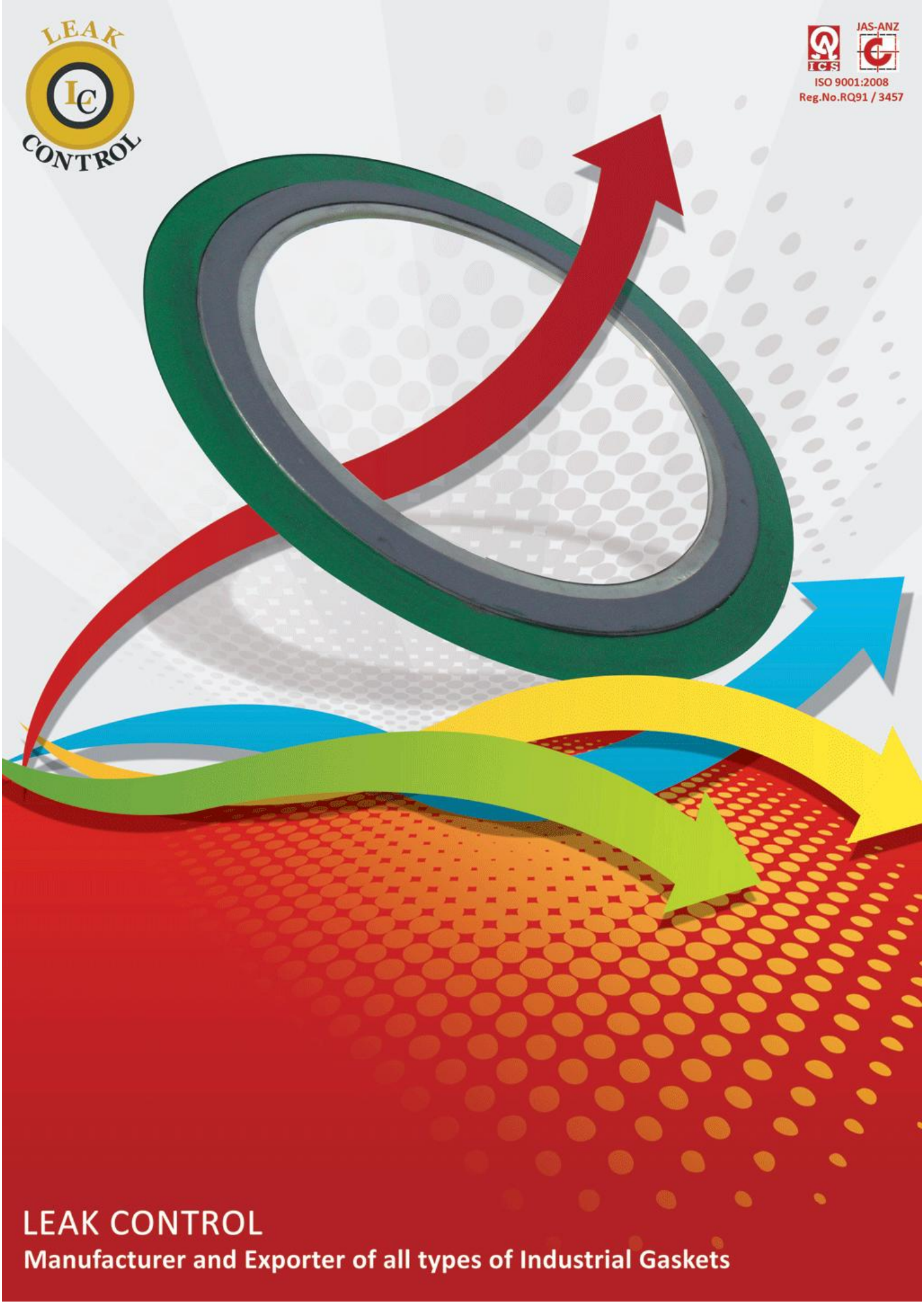
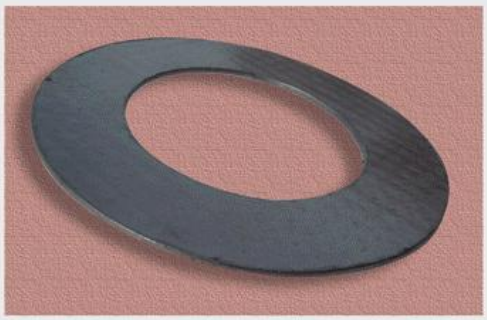

LEAK
CONTROL
JAS-ANZ
ISO 9001:2008
Reg.No.RQ91 / 3457
LEAK CONTROL
Manufacturer and Exporter of all types of Industrial Gaskets

We are a professional manufacturer of all types of Industrial Gaskets in India. Since 2001, we have been manufacturing and supplying for **refineries, fertilizers, petrochemicals, process plants, atomic energy, oilfields, ship building, valve industries and other process industries.**



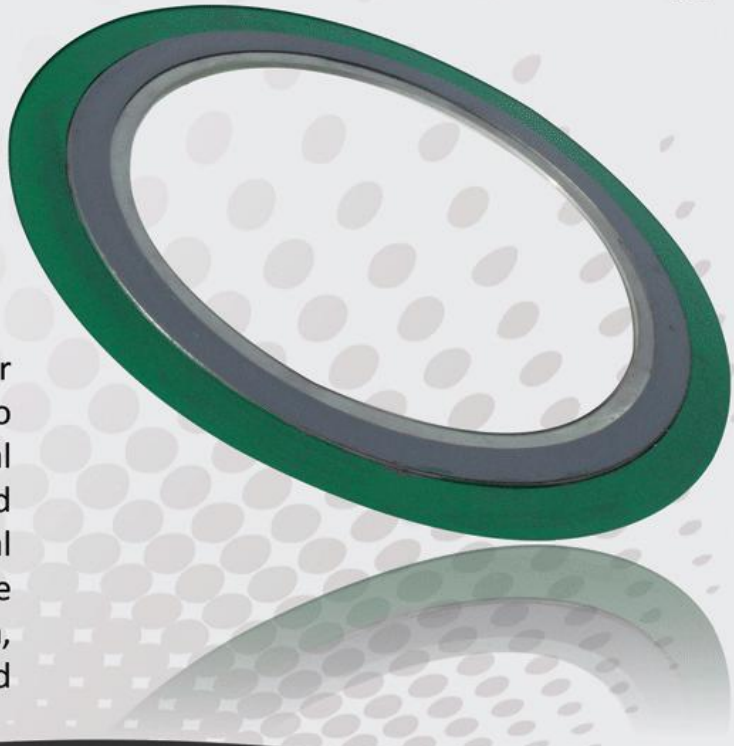
Our mission is directed towards providing the **customer oriented products** and ensuring the **success and satisfaction of our business partners**. Working towards our mission, we follow the axioms of total quality and continuous improvement in product features and processes.

We are **ISO 9001:2008 CERTIFIED**, and on par with world class players in manufacturing process as well as technology. Our commitment to quality and a customer oriented business policy have helped us to reach incredible heights. A combination of reliable products and dependable services make us an accomplished gasket solution provider, and helps us to stay way ahead of our competitors.

We strive for is top QUALITY and a SATISFIED CUSTOMER base.

SPIRAL WOUND GASKETS

Spiral wound gaskets have proven themselves to be the most reliable sealing element for use in variety of conditions and applications. They are made by winding alternating strips of metal and soft filler material. A 'V' or 'W' shaped crown centered in the metal strip acts as a spring, giving gaskets greater resiliency under varying conditions. Filler and winding material can be changed to accommodate different chemical compatibility requirements. Widely used throughout refineries and chemical processing plants, spiral wound gaskets are also effective for power generation, aerospace, and a variety of valve and specialty applications.



We offer this various range:

Spiral wound gaskets with outer guide ring - Outer ring work as Centering a gasket properly between the flanges limiting bolt load at proper compression Preventing external expansion by compression.This style is most common for ordinary pipe flange of raised face.

Spiral wound gaskets with both inner and outer ring - As inner ring works to prevent internal extrusion or inward buckling, this style is especially recommended for all spiral-wound gaskets with PTFE filler material. For all filler materials, inner rings shall be furnished in spiral-wound gaskets for NPS 24 and larger in class 900, NPS 12 and larger in class 1500 and NPS 4 and larger in class 2500#. This style is commonly used for socket welding, lapped, welding neck and integral flanges. This style is suitable for pipe or pressure vessels using raised face flange connection.

Spiral wound gaskets with inner ring - As inner ring works as reinforcement to prevent internal extrusion or inward buckling of gaskets windings caused by compression, this style is suitable for male and female face connection but not suitable for ordinary pipe flange of raised face.

Spiral wound gaskets without ring - This style is suitable for tongue and groove face connection and sometime for male and female face connection but not suitable for ordinary pipe flange of raised face. This style is commonly used for valve bonnet, pressure vessels, etc.

SPIRAL WOUND GASKETS

Spiral wound gaskets are manufactured as per ASME/ANSI B16.5 (API 601), ASME B16.47 SERIES A (MSS-SP44), ASME B16.47 SERIES B (API 605), BS 1560, BS 4504, BS 10, DIN/EN 1092, JIS FLANGES and FRENCH NF STANDARD.

Size & Shape as per Prevailing International standards or Customer need can be produced.

Annexure

Filler Material	Recommended Maximum Temperature	ASME B16.20 Color Coding
Graphite	550° c	Grey Stripe
PTFE	260° c	White Stripe
Non Asbestos/CAF	350° c	White/Pink Stripe
Ceramic	650° c	--

Winding Material	Recommended Maximum Temperature	ASME B16.20 Color Coding
304/304L Stainless Steel	650° c	Yellow
316/316L Stainless Steel	650° c	Green
347 Stainless Steel	650° c	Blue
321 Stainless Steel	650° c	Turquoise Blue
Monel 400	600° c	Orange
Nickel 200	600° c	Red
Titanium	350° c	Purple
Inconel 600	950° c	Gold
Titanium	350° c	Purple
Inconel 600	950° c	Gold

MARKING TO ASME B16.20 : 2007

- Manufacturing Name
- Pressure class
- Filler Material abbrevation
- Outer Ring Material abbreviation other than Carbon steel
- Nominal Pipe Size
- Winding Material abbreviation other than SS304
- Inner Ring Material abbreviation other than SS304
- Manufacturing Standard

SOFT GASKETS / SOFT CUT GASKETS

Soft Cut Gaskets are die cut or circle cut from soft gasket materials. A “Soft Gasket" material is a term used when referring to a gasket material that is easily compressed under a low bolt load. This term has been used to distinguish the difference from a metallic gasket. A soft gasket can be selected from a large variety of Compressed Asbestos and Non-Asbestos sheet products. Soft gaskets are used in a wide range of applications from pipe flange, heat exchanger, compressor and bonnet valve gaskets to name just a few. Soft gasketing material are available in a variety of cut shapes or be provided in sheet or rolls.

We manufacture the following Soft Gaskets:
Compressed Asbestos Fibre Gaskets
Compressed Non-Asbestos Fibre Gaskets
Ceramic Fibre Gaskets

The resisting power of gasket to the fluid media in manufacturing a perfect seal against variation on temperature and pressure under working condition determines the selection of gasket Style or Grade as per Indian standard IS2712-1998 have specified Grades of compressed asbestos fibres (CAF) depending upon the application as follows:

SOFT GASKETS / SOFT CUT GASKETS

Grade	Application	Temp. And Pressure
IS2712/1998 W/1	Water, steam and for some chemical high service conditions	Upto 350° c and 130 Bar
IS2712/1998 W/2	Water, steam and for some chemical medium service condition	Upto 350° c and 40 Bar
IS2712/1998 W/3	Oils - high service conditions	Upto 350° c and 130 Bar
IS2712/1998 O/2	Oils - medium and nominal service conditions	Upto 300° c and 80 Bar
IS2712/1998 A/1	Acids - highly corrosive	Upto 250° c and 100 Bar

Ceramic Fiber Gaskets are appropriate when an inexpensive heat seal is required. Only used where sealing pressures are low, it happily operates in areas where temperatures are in excess of 1472 F. It is soft and can be easily laminated to form thicker seals, hence flange finish is not particularly important when using this material. Used mainly as high temperature insulation for sensitive apparatus it has good dielectric strength and so is often used as an electrical insulation. Usually supplied with an organic binder to improve it's tensile strength.

Soft Cut Gaskets are manufactured as per ASME/ANSI B16.5 Raised Face & Full Face, ASME B16.47 SERIES A (MSS-SP44), ASME B16.47 SERIES B (API 605), BS 1560, BS 4504, BS 10 and DIN FLANGES.

RING TYPE JOINT GASKETS

Ring type Joint Gaskets are designed to seal by "initial line contact" or wedging action between the mating flange and the gasket. By applying pressure on the seal interface through bolt force, the softer metal of the gasket flows into the micro fine structure of the harder flange material, creating a very tight and efficient seal.

CROSS SECTION

R Oval Type

The contact face is in oval shape. It provides a high reliabililty seal. These gaskets comply with ASME B-16.20.

R Octagonal Type

More accurate in dimensions and surface finish than oval type because it consists of straight surfaces only. A Higher torque load is required to flow the gasket material into imperfections of the flange facings.These gaskets comply with ASME B-16.20.

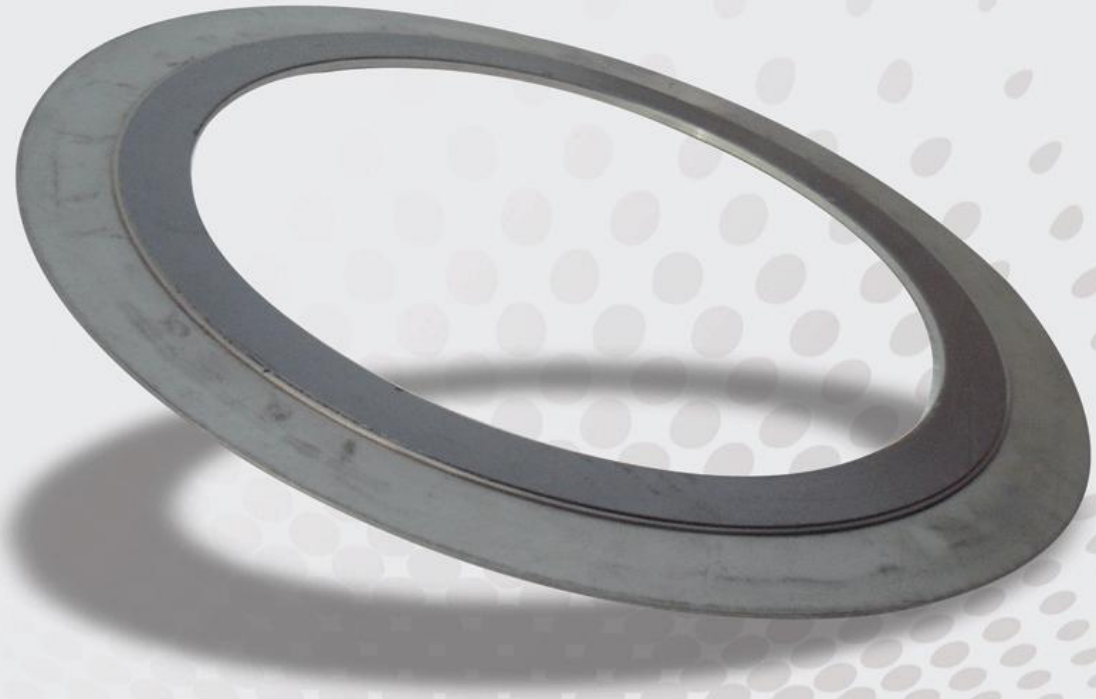
BX type

Designed to ASME B16.20 and API 6A. Interchangeable with the oval and octagonal series of identical reference numbers, and used in the same flange grooves.

RX type

Designed to ASME B16.20 and API 6A. for use with grooved flanges for special applications involving high pressures from 5,000 to 15,000 psi.

CAMPROFILE GASKETS



Camprofile Gaskets consist of a solid metal core serrated on both sides and covered with a soft conforming sealing material (filler) that is bonded to each face. This soft facing produces a gasket with low seating stress. The design of the serrated metal core enhances the gasket's sealing performance by inducing stress concentrations on the sealing surfaces, thus minimizing lateral flow and confining the applied load upon the gasket sealing faces.

The combination of serration profile and soft sealing material work together so that final compression of the gasket exhibits a profile of alternating metal and filler boundaries. Camprofile Gaskets are best suitable for use in heat exchangers and other large diameter applications where a rigid, semi-metallic design, is desired for blowout resistance and ease of installation.

Material Options

Metal Core	Max.Temperature	Metal Core	Max.Temperature
304 SS	1400°F 760°C	Copper	600°F 315°C
316 SS	1400°F 760°C	INCONEL®	2000°F 1090°C
321 SS	1400°F 760°C	INCOLOY®	1600°F 870°C
Aluminum	800°F 425°C	MONEL®	1500°F 815°C

RUBBER GASKETS

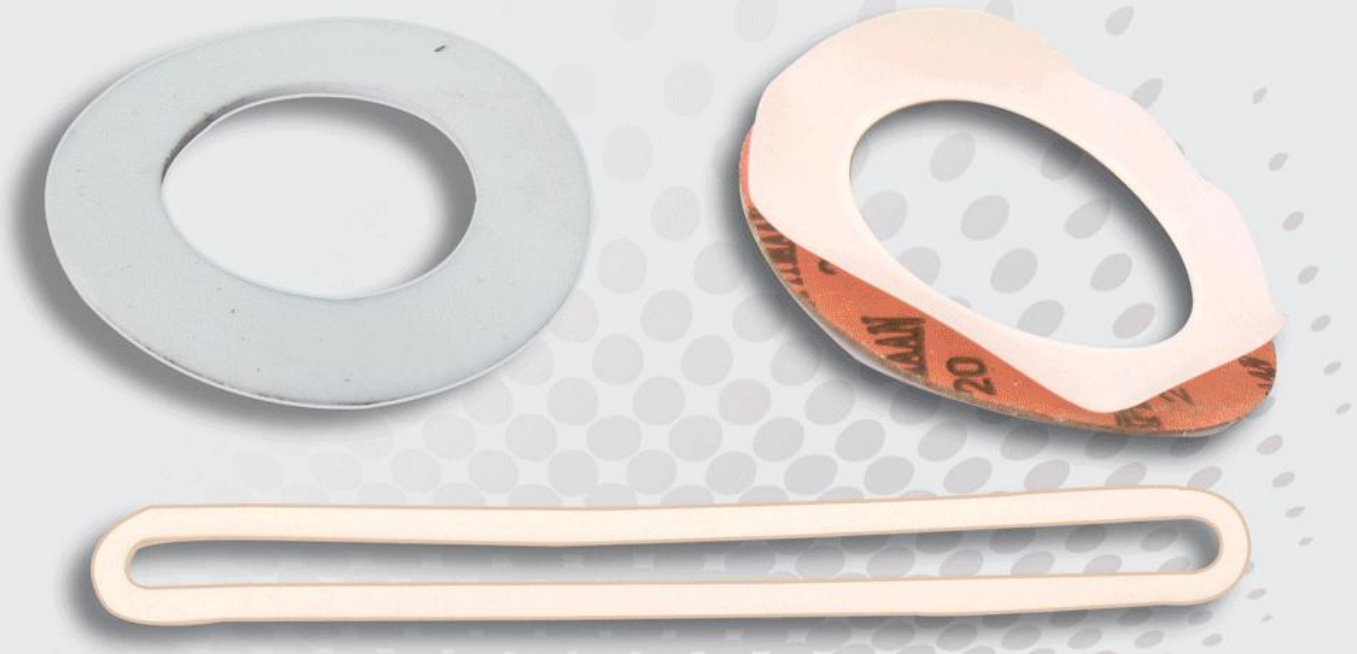
Rubber is the most cost-effective material to use where temperatures and pressures are low and the chemical environment is mild. Different elastomers offer different mechanical and chemical properties. Cloth inserted materials are better able to handle movement and high compression loads.

Rubber Gaskets are die cut or circle cut from different types of rubber materials.

RUBBER GASKETS

Material	Max T (F)	Max P (psi)	Thick. (in.)	Applications / Features
Butyl	-40 to 225	150	1/16 to 1/4	Gases, inorganic acids & alkalis. Excellent weather/abrasion resistance.
EPDM	-40 to 212	150	1/16 to 1/4	Water, steam, animal/vegetable oils, oxygenated solvents. Excellent weather resistance.
Natural (Pure Gum)	-20 to 140	100	1/32 to 1	Acids, organic salts & alkalis. Non-toxic. Abrasion resistant. Soft.
Neoprene	-20 to 170	150	1/32 to 2	Oil/gasoline. Excellent weather resistance.
Neoprene - Cloth Inserted	-20 to 170	150	1/32 to 1/4	Oil/gasoline. Excellent weather resistance. Handles movement. High tensile strength.
Nitrile (NBR, Buna-N)	-25 to 170	150	1/32 to 2	Oil/Aromatic fuels, mineral, animal and vegetable oils, solvents and hydraulic fluid. Available in commercial, premium and FDA grades.
SBR (Red Rubber)	-20 to 170	150	1/32 to 1/4	Air, hot/cold water.
SBR - Cloth Inserted	-20 to 170	150	1/16 to 1/4	Air, hot/cold water, saturated/low pressure steam. Excellent for high compression loads. Handles movement.
Silicone	to 400	150	1/32 to 1/4	High temperature air or water (not oil or steam). Soft. Available in FDA grade.
Vinyl	20 to 160	150	1/16 to 1/4	Water, oxidizing agents. Excellent weather/abrasion resistance.
Viton®	to 400	150	1/32 to 1/4	Oil/Aromatic fuels, mineral, animal and vegetable oils, solvents and hydraulic fluid.

PTFE (Teflon®) GASKETS



PTFE -based gasket materials are able to withstand significantly more aggressive chemical environments (including highly oxidizing environments) than standard non-asbestos gasket materials. However their temperature, pressure and mechanical performance are inferior to standard non-asbestos gasket materials. Metal inserted and expanded PTFE are able to operate at higher pressures.

Material	Max T (F)	Max P (psi)	Creep Rel'n	Applications / Features
Pure PTFE	450	800	35 - 55	Excellent chemical resistance.
Filled PTFE	450	1200	Nov-40	Excellent chemical resistance.
Filled PTFE - Metal Inserted	450	2500	20	Excellent chemical resistance. 316 SS perforated core.
Expanded PTFE	-20 to 170	150	1/32 to 2	Oil/gasoline. Excellent weather resistance.

PTFE (Teflon®) GASKETS

PTFE is principally used as a gasket material because of it's capability to remain unaffected by the majority of chemicals used in industry. It is also classified, in most cases, as a food grade material, making it acceptable to both medical and food production industries. There are three basic types of PTFE gasket materials. Virgin PTFE, filled PTFE and expanded PTFE.

Virgin PTFE is by far the least expensive of the three varieties, and is used in most general applications. Filled PTFE is a gasket material with a virgin PTFE base to which a substance is added during manufacture to improve the sealing characteristics of PTFE. This "filler" usually is glass or graphite particles although ceramics has sometimes been used. The resulting gasket material is strong, yet highly compressible with very good, though not universal, chemical resistance.

Expanded PTFE is virgin PTFE to which a stress resistance has been added by means of molecular rearrangement during manufacture. This process ensures that the molecular chains from which the PTFE is constructed, do not arrange themselves into set patterns. This means that expanded PTFE possesses no structural weakness (grain) and expands and contracts equally in all directions. Because no additives are required, expanded PTFE also possesses the unique chemical resistance of virgin PTFE.

PTFE Ring Gaskets

PTFE Envelop

Level Gauge Gaskets

GRAPHITE GASKET AND PACKING RINGS

Graphite Gaskets are the most resistant gaskets for flanges capable of withstanding to high temperature and pressure. Standard Gaskets are 95% to 98% pure, with a nuclear grade available at 99.9% purity. Graphite Gaskets are of two types Pure Graphite Gaskets and Graphite Gaskets with Metal Insert.

Graphite gasketing materials are made from pure exfoliated exhibiting excellent sealing characteristics, withstanding a high range of temperatures pressures and chemicals. The homogeneous material is free of respirable fibers, binders and additives. Standard grades are 95% - 98% pure graphite sheet. Graphite is extremely conformable giving it the ability to flow into flange surface imperfections. Its low permeability and chemical resistance make it an ideal choice as a sealing material.

Pure Flexible Graphite Gaskets are die cut or circle cut from Pure Flexible Graphite materials.

A metal insert gasket is a rigid laminated gasket consisting of soft layers of graphite bonded to each face of a solid metal core by high temperature/chemical resistant synthetic bonding agent. The metal core material is selected to suit the application design conditions and the media to be sealed. Standard core material is 316 stainless steel. These gaskets are widely used in chemical and petrochemical industries, where a high temperature/corrosion resistant and high integrity joint is required.

GRAPHITE GASKET AND PACKING RINGS

Material	Max T (F)	Max P (psi)	Creep Rel'n (%)	Applications / Features
Pure Flexible Graphite	950	2100	5	Excellent chemical resistance except powerful oxidizing agents. Available laminated or homogeneous.
Pure Flexible Graphite - Metal Inserted	950	2800	7	Excellent chemical resistance except powerful oxidizing agents. Available with 316 SS Foil, Mesh or Tang Core. Available laminated or homogeneous.

Graphite Packing Rings are formed by molding flexible graphite tape or flexible graphite braided packing, metal materials can also be put in, they are often used together. It is mainly used for sealing of valves, pumps and expansion joints which are used in oil industry, chemical industry, thermoelectric station, nuclear, etc. They are available in endless rings, rings with single oblique cut and split rings with oblique cuts.

CORRUGATED GASKETS

Corrugated gaskets are versatile sealing element where the available bolt loads are low. They are available in three forms.

Corrugated Solid Metal Gasket – A plain, all metal corrugated gasket for use in low pressure application that require a thin line contact because of space and weight limitations. The design of this type gasket allows for a wide variety of metals to select from to meet special process criteria.

Corrugated Metal Graphite Gasket - Corrugated Metal faced on both sides with graphite. This type of gasket makes an excellent product for both standard flange gaskets and heat exchanger type gaskets where there is low bolt load or high available gasket stresses.

Corrugated Metal PTFE Gasket - Corrugated Metal faced on both sides with expanded PTFE. The PTFE selection for the face material gives you the chemical resistance for aggressive applications.

Application

Valves
Pumps
Vessels
Heat Exchangers
Flanges

JACKETED GASKETS

Jacketed gaskets combine the temperature resistance of a metal jacket with the sealing performance of soft filler. Jacketed gaskets shall be made with a filler material enclosed in metal jacket. The jacket metal thickness shall be a minimum of 0.38 mm (0.015in). The filler thickness shall be a minimum of 1.5 mm (0.06in). The jacket and filler materials are selected to optimizes temperature and chemical performance; construction style is dictated by pressure needs, gasket geometry and sealing issues.

There are many different styles of jacketed gaskets available. The following is a selection of the most commonly used styles.

The single jacket gasket with soft filler protects both edges of filler material. This gasket is generally used for applications where narrow width is required. It is an economical answer to many gasket needs. Single Jacketed gaskets are available with corrugated metal fillers.

The double jacket gasket offer complete protection of the filler material. There is practical no diameter limitation with greater compressibility and resilience than a similar solid metal gasket. This gasket provides even support by the use of the overlapped jacket on the inside and outside diameters. Also, the outside lap helps to prevent excessive distortion of light weight flange. The most common filler used is graphite. A wide range of metal and filler material is available if dictated by temperature, pressure or corrosive conditions.

The double jacket corrugated has increased resilience with the benefits of number of seal " points". If a small leakage occurs across the inside edge, the corrugations act as separate seals under moderate and even bolt loads.

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