Bellow Seal Valves: Low to Medium Pressure

Description

http://altonashop.com/Products/bellows_valves.htm

Bellow Seal Valves: High Pressure

Description

http://altonashop.com/Products/bellows_valves.htm

PGE Flange Gasket

Description

The PGE Flange Gasket is a low-pressure service gasket designed for electrical flange isolation and/or general sealing applications. This gasket is suitable for use in raised-face and flat-face flanges in ANSI class 150 and 300 service (or equivalent). In addition to providing electrical insulation, the gasket is excellent for electrically isolating flanges made of dissimilar metals or where prevention of flange face corrosion is desired.

The PGE Flange Gasket was designed to give operators an alternative to failure-prone phenolic-based insulating gaskets. Based on its construction, the PGE will provide a superior, long-lasting solution when compared to phenolic-based designs. The PGE is available in two configurations: full-face (Type E) and ring style (Type F). Depending upon the sealing element selected, the PGE is rated for most all hydrocarbon and water service applications.

The unique design of the Pikotek PGE gasket incorporates patented overlapping and offsetting seal grooves. The purpose of this design is to break each layer of laminate within the gasket itself, thereby creating a barrier through which fluid and/or gas cannot migrate. The sealing element can be any elastomeric material as well as more sophisticated Spring-Energized Teflon lip seals. As a result of this advanced gasket design, maintenance-free flange isolation and flange face corrosion mitigation are achieved economically.

Advantages & Benefits
Superior sealing solution for low-pressure (ANSI class 150 and 300) service.
Pressure-activated seals provide high confidence sealing.
High-strength laminate material resists failure due to excess compression (i.e., over-tightening bolts).
Overlapping seal grooves eliminate potential leak/weep path in laminate material and provide stronger structural integrity versus "opposing seal" designs.
Reinforced laminate retainer material provides excellent insulation for cathodic protection systems.
Insulating Kits always include high-strength double washers and full-length sleeves for maximum assurance against shorting.
Gasket is sized to the bore, which protects flange faces from media-induced corrosion and flow-induced erosion.
Mitigates galvanic corrosion in dissimilar metal flanges.
Developed from proven Pikotek sealing technology.
Spring-energized Teflon seal provides radial load and encapsulation in the seal groove, which eliminates cold flow. This seal truly distinguishes the PGE from all other sealing systems.
Also available with a variety of elastomeric seals.
Easy installation, make up and removal
- The PGE easily slips into place.
- Sealing system results in low required bolt loads. Less make-up force is required, resulting in less flange and bolt stress.
- Gasket is self-aligning and self-centering, quick to install; no special tools are required.
Maintenance-free, corrosion-resistant design.
PGE Design
Gasket/Seal Retainer
The PGE gasket/seal retainer is constructed from NEMA grade G-10 glass-reinforced epoxy (GRE). This material has excellent performance characteristics with very high compressive strength, high flexural strength, high dielectric strength and low fluid absorption. PGE gaskets made from grade G-10 material are rated for service up to 300 degrees F (150 C). For higher temperature service, grade G-11 is an acceptable alternative material, which is rated for 350 degrees F (177 C) continuous service.

Two overlapping and offsetting seal grooves are machined into the high strength retainer in order to break the potential leak/weep path that is inherent in all glass laminate materials. The breaking of the leak/weep path is unique to the PGE and truly distinguishes it from all other electrical insulating flange gaskets.

Sealing Elements
The sealing elements provide an impervious barrier through which no contained media or other substance can penetrate. Consequently, the composite retainer backing material behind the seal remains uncontaminated and thus permanently holds the seal in place in a static, fully-encapsulated manner.
Pikotek offers three standard sealing elements for use with the PGE. For custom applications, other sealing elements such as Kalrez or EPDM may be specified. The three standard seals are:

Teflon (Spring-energized)
Recommended for all environments. Helical wound spring provides radial load. Encapsulation in the seal groove eliminates creep or cold flow. This sealing system truly distinguishes Pikotek gaskets from all other flange sealing systems. Teflon is the most reliable sealing element available.

Viton
General purpose oilfield elastomer. Excellent resistance to aliphatic hydrocarbons and glycols. Good resistance to aromatic hydrocarbons. Not recommended for: Systems with amine inhibitors and in piping systems containing significant partial pressures of H2S, polar gases (i.e. C02) or where radical pressure drops commonly occur.

Nitrile
General purpose elastomer. Excellent for use in water systems or with some aliphatic hydrocarbons, silicone base fluids and glycol based systems.

Not recommended for: Systems containing H2S, aromatic hydrocarbons, phosphate esters or halogenated hydrocarbons; piping systems subjected to radical pressure drops or piping systems containing significant partial pressures of polar gases (i.e., CO2).

Insulating Kits

In order to electrically insulate the two flange faces, insulating sleeves and washers are required. To protect your investment in flange isolation, Pikotek only provides full length sleeves and double washer sets (i.e. one insulating washer for each end of the bolt). All insulating washers are made of GRE and have a compressive strength of 60,000 psi. Two metal washers are also provided for each sleeve.

Pikotek offers insulating sleeves made from GRE and Mylar. The metal washers are either zinc plated 1050 carbon steel or stainless steel. Other custom materials are available on request.

Flowlok & Firelok Gaskets & Seals

Description

Flowlok flange connections are designed to minimize fugitive emissions in bolted end-connections through the use of a patented dual seal design that "locks" in the media and improves flange sealability when compared to conventional flange gasket technology even in connections with imperfect flange faces.

The Flowlok is composed of essentially two independent sealing components, a high modulus composite-lined structural seal retainer and a secondary pressure-energized radial face seal. The primary sealing element is the composite seal retainer lining material located outside of the secondary radial face seal.

The gasket lining material is composed of a structurally rigid, yet superficially compressible material such as a glass-reinforced polymer (glass-reinforced epoxy, silicon, melamine or polyimid) or other non-asbestos high-temperature polymer material which can then be coated with either Buna N rubber or chemical resistant neoprene. This material possesses good compressive strength while also providing a positive seal. The result is sealability without material deformation. The secondary face seal material is the key to fugitive emission minimization. The standard seal is a helical wound spring-energized Teflon lip seal. For nonstandard applications, Teflon can be substituted with a wide range of other superior elastomeric and non-elastomeric face seal materials (see section on Seal Materials).

The Pikotek Flowlok is designed for use in all ANSI and API class flanges including ring-joint (RTJ), raised-face, and flatface (or combination) flanges. This means that the Flowlok can be used to mate dissimilar flange types as well.

Firelok (API 6 FB fire tested)

The Firelok flange connection offers all of the features and benefits of the Flowlok with the added feature of a patented fire-resistant “piston” seal which is designed to capture the media in the event of ultra-high temperature (hydrocarbon) flame impingement such as would be present in a runaway hydrocarbon fire.

The Firelok connection with fire-safe metal-to-metal backup seals has passed the API 6 FB destructive fire test for bolted end-connections (2,000 degrees F for 30 minute duration).
VCFS Flange Gasket

Description

The VCFS* utilizes Pikotek’s standard VCS design with its 20 plus year track record of success in sealing Very Critical Service. The FS* version was created by taking a standard VCS configuration and adding a secondary sealing element that is capable of maintaining a seal while subject to a 1500ºF (800ºC) fire. The VCFS* combines the VCS’s proven track record of electrical isolation and sealing integrity in aggressive situations with a solution that has fully passed the API 6FB, 3rd Edition fire test.

The VCFS* is suitable in all services up to and including ANSI 2500# and is offered for ring type joint (RTJ) flanges from 6”- 24” and raised face flanges from 2”-24”. The VCFS* is designed for service where the cost of joint failure cannot be tolerated and the operator desires both electrical isolation and added sealing integrity in the case of a fire.

The VCFS* consists of a PTFE spring-energized primary sealing element and an E-ring secondary seal, all seated in a high-strength metal core upon which an insulating laminate is permanently bonded. Due to its unique pressure activated sealing mechanism, the gasket requires far less bolt stress to seal than other gasket types. In addition, the engineered E-ring will serve as a secondary seal during normal operation and the primary sealing element during a fire.

* Note: The “FS” or “Fire Safe” designation denotes only that this gasket has successfully passed the API 6FB fire test. Due to the fact that every fire is unique and many uncontrolled variables are present, no other claims regarding suitability or performance in a fire are made. Each designer, user and/or operator will need to assess their individual situation when deciding to install FS style gaskets. Patent Pending.

VCS (Very Critical Service) Flange Gasket

Description

The VCS flange gasket is a “Very Critical Service” gasket designed for electrical flange insulation and general sealing applications. This gasket is suitable for use in raised-face, flat-face and RTJ flanges in all pressure classes. In addition to its superior sealing characteristics and excellent dielectric properties, the VCS gasket is ideal for isolating flanges made from dissimilar metals (thus mitigating galvanic corrosion) and for mitigating localized flange face corrosion.

The VCS was originally designed to provide a reliable sealing solution for electrical insulation of critical flanges, particularly where phenolic ring gaskets had been failing in RTJ flanges.

Advantages & Benefits

Extreme high-reliability sealing and insulating solution for all critical services.
Seals and insulates at all pressures up through ANSI 2500 class and API 15000 psi service.
Withstands severe service conditions including large bending moments, vibration, temperature and pressure cycling.
Designed to withstand corrosive environments, including high concentrations of C02, H2S, produced water, etc.
Outstanding insulation properties for cathodic protection.
Pressure-activated seals provide high confidence sealing and eliminate
costly leaks. Gasket is sized to the bore to protect flange faces from media-induced corrosion and flow-induced erosion. Prevents turbulent flow at flanged connections. Mitigates galvanic corrosion in dissimilar metal flanges. High-strength laminate material resists failure due to excess compression (i.e., over-tightening bolts). Available to match any flange specification (ANSI, API, MSSP, BS, DIN, AS, others).

Can mate mismatched RTJ with raised-face flanges. Easy installation, make-up and removal:
- Flanges do not have to be spread as with ring gaskets. The VCS easily slips into place.
- Sealing system results in low required bolt loads.
- Less make-up force is required resulting in less flange and bolt stress.
- Gasket is self-aligning and centering, quick to install. No special tools are required.

Maintenance-free, corrosion-resistant design is resistant to deforming under load, which makes the gasket reusable.

VCS Design
The unique and patented design of the VCS gasket incorporates high-strength, glass-reinforced epoxy laminate bonded to a stainless steel core. This provides the strength of a traditional metallic gasket while maintaining complete electrical insulation between the flange faces. Seal grooves are machined through the laminate insulating material and into the stainless steel core. This provides a strong base for the seal to seat into and breaks the potential leak/weep path that is inherent in glass laminate materials. Spring-energized Teflon internal face seals are installed in the dovetail-shaped seal grooves to provide the trademark pressure-activated sealing that distinguishes the VCS from all other high pressure insulating gaskets (Viton o-rings also available if specified).

Electrical Insulation
In addition to its superior sealing characteristics, the Pikotek VCS distinguishes itself by providing electrical flange insulation in a high-strength gasket. The VCS significantly decreases electrical potential between two flange faces by providing a non-conducting, non-metallic interface. This effectively eliminates corrosion resulting from dissimilar metals contact or ground current induced corrosion of metal piping components. When used with insulating sleeves and washers, the VCS is particularly effective in breaking electrical conductivity in piping systems with cathodic protection systems.

What makes the VCS unique among insulating gaskets is its strength and durability. Traditionally, insulating gaskets have been fragile and prone to failure because they are often made from brittle, non-metallic materials (i.e., phenolic resin) and are not capable of withstanding imperfect installation practices. The VCS's steel core and patented construction enables the gasket to withstand far more system pressure, pressure cycling, bending moments, over-torquing and overall abuse than conventional insulating gaskets with zero risk of product failure.

Sealing Characteristics
The primary job that any gasket must perform is to seal the pressure differential between the internal and external environment. The VCS performs this task through the use of its spring-energized, pressure-activated sealing elements. At low system pressure, the spring acts to deflect the lips of the seal, thus enabling low pressure sealing. As the pressure increases and comes in direct contact with the sealing element, the system pressure energizes the lips of the seal against the flange face and the stainless steel core. The greater the pressure, the more sealing force is applied against the flanges. This high pressure sealing is accomplished while maintaining complete electrical flange insulation. This high-reliability sealing system makes the Pikotek VCS the gasket to use when gasket failure cannot be tolerated.

The fact that the VCS uses pressure-activated sealing elements which are
located inboard of the ring groove on RTJ flanges has the additional benefit of allowing the VCS to seal mismatched RTJ to raised-face or flat-face flanges. This feature is very useful when replacing valves using stock inventory that may have a different flange face than the mating flanges.

**Pikotek**

**Description**

**VCS (Very Critical Service) Flange Gasket**
for reliable sealing solution and electrical isolation of very critical flanges especially where phenolic ring gaskets fail

**VCFS Gaskets & Seals**
fire safety tested version of the VCS flange gasket. Fullu passed API 6 FB 3rd Edition fire test

**Flowlok & Firelok Gaskets & Seals**
spring energised seals for extreme chemical and/or mechanical applications
API 6 FB fire tested flange isolation system

**PGE Flange Gasket**
for superior long lasting electrical isolation solution or low pressure general sealing

http://altonashop.com/Products/pikotek.htm

**Bonetti Valves**

**Description**

http://altonashop.com/Products/bonetti_valves.htm

**Other Sealing Products**

**Description**

**Insulation Gaskets**
Its chief purpose is to give effective electrical isolation on a flange. Effective use of insulation gaskets will contribute significantly to the reduction of cost in a cathodic protection system. They have a crucial role to play in limiting current flow on extended pipelines or around hazardous areas and in the control of corrosion. Insulation kits are provided in sets to fit standard flanges conforming to ANSI, BS and DIN standards. Phenolic materials are used primary for insulation on the sleeves and washer while the gasket is usually reinforced Phenolic with neoprene facing. For critical
applications where Phenolic materials are not suitable we recommend Pikotek sealing and electrical isolation solutions.

**Flat Gasket With Metal Inner Eyelet**

These are conventional raised face flange gasket made of non-metallic materials reinforced with a stainless steel inner eyelet. The eyelet is made of a fine stainless steel of between 0.12mm to 0.2mm thickness and U-bent onto the gasket for greater blowout protection. This will result in a gasket with the following advantages:

- High resistant against blowout, ruptures and extrusion
- Protect high purity media from contamination
- Protect against cross section diffusion of dry gases or other media
- Protect the gasket from attack by aggressive media.
- Offer higher maximum unit load and stress resistant over conventional gasket
- Offer better fire resistant characteristics and helps to maintain seal in the event of fire

http://altonashop.com/Products/other_sealing_products.htm

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**Gasket Cutting Service**

**Description**

**Cut Gaskets**

Altona provides a comprehensive die cutting service for a wide range of materials. We offer very competitive prices and very fast delivery times for most standard gasket items.

**Available Materials**

- Tesnit range of non-asbestos and asbestos materials.
- Elastomers including rubber, EPDM, and Neoprene
- Sealite Cellulose Fiber
- Sealite Expanded PTFE
- Sealite Graphite materials. UCarb graphite materials on request,
- Pure PTFE and filled PTFE materials
- Other materials on request

**Flange Standards**
Altona support the following flange standards in our production programme:

1. German DIN standard - PN 10, PN 16 and PN 25

2. American ANSI standard - Class 150lb, and Class 300lb


For all other standards or class ranges please contact us for quotation.

Non-Standard Sizes & shapes

For non-standard shapes or sizes detailed drawings with dimensions is required. The gasket may be hand cut for low volume jobs or die cut as required. Materials must be specified when requesting for quotation for non-standard shapes or sizes.

Die Cut Service

Altona also provides die cutting service for a wide range of application and materials. We offer competitive rates for large volume cutting jobs for many industries including packaging, insulation and the electronics industry. Please contact us for more details.

http://altonashop.com/Products/gasket_cutting_service.htm

Marsh

Description

The Marsh Instrument Company was originally established in 1865 in Skokie, Illinois, as the James P. Marsh Company. In 1988 it merged with Marshaltown Instruments, another company with a long history in process instruments dating back to 1918. With over a century’s experience Marsh products are renown for superior quality at competitive pricing.

Reflex, Transparent and Bi-colour Glass Liquid Level Gauge

Description

Reflex, Transparent and Bi-colour Glass Liquid Level Gauge

http://www.cesare-bonetti.it/ProductCatalogs/d8ad0ed8-e1f4-bbaf-acc085bf99b3.pdf
PTFE PRODUCTS

Description

PLASTICS

Of all the plastics, PTFE (Polytetrafluoroethylene) have emerged as the most common plastic gasket material. PTFE's outstanding properties include resistance to temperature extremes from -140°F to 450°F (for virgin material). PTFE is highly resistant to chemicals, solvents, caustics and acids except free fluorine and alkali metals. It has a very low surface...
energy and does not adhere to the flanges. PTFE gaskets can be supplied in a variety of forms; either as virgin or reprocessed material, and also with a variety of filler material. The principal advantage in adding fillers to PTFE is to inhibit cold flow or creep relaxation.

LAMOONS NON-METALLIC GASKETS

Description

NON-METALLIC GASKETS

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 material can be selected from a large variety of rubbers and compressed non-asbestos sheet products, PTFE, flexible graphite and high temperature sheet. 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 gasket material can be purchased in a variety of cut shapes or be provided in sheet or rolls.

As part of Lamons strategy to offer customers a wider range of products, we are pleased to supply the following soft gasket materials:

- Elastomeric and Fiber Sheet
- Compressed Non-Asbestos Sheet
- Virgin / Glass-Filled / Reprocessed PTFE Sheet
- Biaxially Orientated (Filled) PTFE Sheet
- Expanded PTFE Sheet
- EPTFE Joint Sealant
- PTFE Envelope Gaskets
- Flexible Graphite Sheet
- Ceramic Fiber
- Mica Sheet

Spiral Wound Gaskets

Description

Spiral wound gaskets are special semi-metallic gaskets of great strength and resilience. Manufactured by spirally winding V-shaped metal strips and strips of non-metallic filler with good sealing characteristics, they are suitable for use under heavy operating conditions at high temperature and pressures. Applications include the sealing of flange joints, boilers, heat exchangers, valves and pressure vessels. Inner rings and outer rings may be added to reinforced the gasket. A range of metals and filler materials are available to suit different applications.

Tesitallic® Spiral Wound

Spiral wound gaskets are special semi-metallic gaskets of great strength and resilience. Manufactured by spirally winding V-shaped metal strips and strips of non-metallic filler with good sealing characteristics, they are suitable for use under heavy operating conditions at high temperature and pressures. Applications include the sealing of flange joints, boilers, heat
exchangers, valves and pressure vessels. Inner rings and outer rings may be added to reinforced the gasket. A range of metals and filler materials are available to suit different applications. Standard Tesitallic spiral wound gaskets are made to fit ANSI B 16.5 and BS 1560 flanges. Spiral wound conforming to ASME B16.20 specification on request. Colour coding to industry standard is available. Nominal thickness available is 4.5mm and 3.2mm. Special request is required for a nominal thickness of 6.4mm. Non standard spiral wound gaskets are available in various dimension and shapes for use as flange gasket, manhole gasket, handhole gasket or other applications. Spiral wound gaskets is only suitable for circular or moderately non-circular shapes.Limitations on size and shape largely depends on practical considerations in the manufacture of the gasket.

Ring Type Joints And Other Solid Metal Gaskets

Description

Ring Type Joint
Solid metal type gaskets are designed for use in high temperature and high pressure environments. These gaskets must perform in very demanding applications often in the presence of strong corrosive agents. Made from solid metal and machine formed to the desired dimensions and shape they are commonly found in refineries, oil and gas fields and in chemical process plants. They are available in a variety of materials. It is strongly recommended that the gasket metal be softer than the flange material.

Non standard spiral wound gaskets are available in various dimension and shapes for use as flange gasket, manhole gasket, handhole gasket or other applications. Spiral wound gaskets is only suitable for circular or moderately non-circular shapes. Limitations on size and shape largely depends on practical considerations in the manufacture of the gasket.

Metal jacketed gaskets

Description

Metal jacketed gaskets are semi-metallic gaskets in which a non-metallic filler is jacketed with sheet metal to produce a seal of exceptional strength. The soft filler allows for better compressibility as compared to a pure metallic gaskets. This makes for better sealability on irregular flange surfaces. The application temperature is limited by the filler material and the metal’s endurance. There is a minimum lap width which must be taken into consideration when relatively small diameters or radii are required.

Camprofile Gaskets
These are special metal jacketed gaskets. The filler is of pure expanded graphite and the stainless steel metal is profiled with concentric circles. The center is reinforced with a preformed stainless steel ring which offers exceptional strength to prevent blowout. The gasket offers high sealability and great strength and is used at elevated temperatures and pressures.
Sealrite Sealing materials and supplies

Description

Graphite Material
Pure expanded mineral graphite products provides an excellent gasket material for high temperature, high pressure applications or for applications where the gasket width is relatively narrow. The material is resistant to most organic and inorganic acids and is suitable to seal a very wide range of media. It is almost completely impermeable to gases and fluids and is commonly used in very demanding application where low emission is paramount. The material have no ageing or embrittlement problems common with elastomeric based materials and displays long term stability of compressibility and recovery over a wide temperature range. Graphite however is not suitable for use with very strong oxidising compounds like highly concentrated nitric acid or chromic acid.

PTFE Material
PTFE’s high chemical resistance against a wide spectrum of different mediums makes it an exceptional sealing material for aggressive fluids. Altona stocks pure PTFE gaskets and PTFE materials for a wide range of applications.

Cellulose Fibre Jointing
This is a very economical sealing material. It has excellent oil and fuel resistance and has a maximum continuous service temperature of 120°C.

Compression Packing
Sealrite provides a comprehensive range of compression packings for a wide range of applications. Compression or mechanical packings may be used for both static and non-static sealing functions depending on the nature of the materials used and the construct of the packing.

Rubber Material
Rubber and other rubber like elastomers possesses mechanical properties that make them excellent for use in a wide range of general industrial applications including fluid sealing. Many synthetic elastomers in particular are engineered to resist a range of chemicals and reduce the ageing effect common to natural rubber. This makes these materials suitable for use as gaskets, seals, covers, linings and mats. Sealrite offers a wide range or rubber materials in sheet or roll form. They may be used for a wide range of applications as well as sealing material.

Tesitallic Metallic Gaskets and Sealing Products

Description

Metal Jacketed Gasket
Metal jacketed gaskets are semi-metallic gaskets in which a non-metallic filler is jacketed with sheet metal to produce a seal of exceptional strength. The soft filler allows for better compressibility as compared to a pure metallic gaskets. This makes for better sealability on irregular flange surfaces. The application temperature is limited by the filler material and the metal’s endurance. There is a minimum lap width which must be taken into consideration when relatively small diameters or radii are required.

Ring Type Joint
Solid metal type gaskets are designed for use in high temperature and high pressure environments. These gaskets must perform in very demanding applications often in the presence of strong corrosive agents. Made from solid metal and machine formed to the desired dimensions and shape they are commonly found in refineries, oil and gas fields and in chemical process plants. They are available in a variety of materials. It is strongly recommended that the gasket metal be softer than the flange material.

Spiral Wound Gaskets
Spiral wound gaskets are special semi-metallic gaskets of great strength and resilience. Manufactured by spirally winding V-shaped metal strips
and strips of non-metallic filler with good sealing characteristics, they are suitable for use under heavy operating conditions at high temperature and pressures. Applications include the sealing of flange joints, boilers, heat exchangers, valves and pressure vessels. Inner rings and outer rings may be added to reinforced the gasket. A range of metals and filler materials are available to suit different applications.

Cellulose Fibre Jointing

Description

Cellulose Fibre Jointing

This is a very economical sealing material. It has excellent oil and fuel resistance and has a maximum continuous service temperature of 120°C.

Sealrite Cellulose Fiber Jointing

Composition: Plasticised gelatine impregnated material, cellulose (vegetable) based fiber.

Characteristics:
This is a very economical sealing material. It has excellent oil and fuel resistance and has a maximum continuous service temperature of 120°C.

It is suitable for the following chemicals:
Alcohols, Aniline, Benzene, Butane, Butyl Acetate, Carbolic Acid, Carbon Dioxide, Detergents, Fuel Oil, Gasoline, Glycerine, Hydrogen, Hydrogen Sulphide, Kerosene, Propane, Phenol, Sodium Silicate, Water (sea & fresh), Vegetable Oils, Xylol...

However it is not suitable for steam, alkali or acids.

Uses:
Commonly used in the automotive industry among OEM manufacturers for gaskets in carburettors, fuel pumps, engine housing or in axle covers. It is also often used to seal hydraulic oil or water in machinery and other similar application where a low cost, low heat gasket is required.

Tesnit BAR-302

Description

BA-R302
TESNIT® BA-R302 has superior thermal resistance coupled with excellent mechanical properties and blowout safety. TESNIT® BA-R302 is designed for the most demanding high temperature applications like those within ships' engines.

COMPOSITION
Tanged carbon steel sheet sandwiched with BA-R300.

PROPERTIES
Material has superior thermal resistance coupled with excellent mechanical properties and blowout safety.

CERTIFICATES
- Germanischer Lloyd.

SURFACE TREATMENT
Surface finish is 2G. Optional graphite or PTFE finish on request.

Composition: Inorganic fiber, NBR, perforated metal twill weave
Operating Pressure max.: 500 bar
Peak Operating Temperature max.: 650 °C
Continuous Service Temperature: 600 °C
Compressibility (ASTM F36/J): 7%
Recovery (ASTM 36/J): 45%
-in ASTM Oil No.3 for 5 hrs at 150°C: 5%

DIMENSIONS OF STANDARD SHEET
Sheet size (mm): 500 x 1400
Thickness (mm): 1.4 | 1.6
Other dimensions and thicknesses are available on request.
nature of the materials used and the construct of the packing. The range is broadly divided into Graphite or Carbon fiber based packings, PTFE fiber packings, other Non-Asbestos material based packings, and packings that contain Asbestos. Click on one one of the icons above for more detailed product information.

**Tesnit BA-GL**

**Description**

Tesnit BA-GL

TESNIT® BA-GL combines excellent thermal and chemical resistance with outstanding mechanical properties, especially bolt torque retention. Thus, TESNIT® BA-GL is particularly suited for gas and steam supplies, heating systems, pumps and compressors.

**COMPOSITION**

Glass fibres, aramid fibres, inorganic fillers, NBR binder. Optional steel wire mesh or expanded steel insert on request.

**PROPERTIES**

This material combines excellent thermal, chemical and mechanical properties. It has outstanding bolt torque retention.

**CERTIFICATES**

DIN-DVGW DIN 3535-6
DVGW VP 401
DVGW KTW
BAM (Oxygen)
TA-Luft (VDI 2440)
API 607
Germanischer Lloyd
WRAS
EC 1935/2004

**SURFACE TREATMENT**

Surface finish is 4AS. Optional graphite or PTFE finish on request.

Composition : Glass Fiber, NBR
Operating Pressure max. : 100 bar
Peak Operating Temperature max. : 450 °C
Continuous Service Temperature : 350 °C
  -with steam : 250 °C
Compressibility (ASTM F36/U) : 8%
Recovery (ASTM 36/U) : 50%
Tensile Strength (ASTM 52910) : 8N/mm²
  -in ASTM Oil No.3 for 5 hrs at 150°C : 8%

**DIMENSIONS OF STANDARD SHEET**

Sheet size (mm): 1500 x 1500 | 3000 x 1500 | 4500 x 1500
Thickness (mm): 0.5 | 1.0 | 1.5 | 2.0 | 3.0
Other dimensions and thicknesses are available on request.

**Tesnit BA-F**

**Description**

Tesnit BA-F

Composition : Graphite, NBR
Tesnit BA-CF

Description

Tesnit BA-CF

TESNIT® BA-CF has excellent thermal and chemical resistance to strong alkaline media. TESNIT® BA-CF is suitable for high temperature applications, petrochemicals and for the paper and cellulose industries.

COMPOSITION
Carbon fibres, inorganic fillers, NBR binder. Optional steel wire mesh or expanded steel insert on request.

PROPERTIES
Material has excellent thermal properties and very good chemical resistance to steam and strong alkaline media.

CERTIFICATES
- DIN-DVGW DIN 3535-6
- DVGW VP 401
- DVGW KTW
- BAM (Oxygen)
- Germanischer Lloyd

SURFACE TREATMENT
Surface finish is 4AS. Optional graphite or PTFE finish on request.

Composition : Carbon Fiber, NBR
Operating Pressure max. : 130 bar
Peak Operating Temperature max. : 500 °C
Continuous Service Temperature : 300 °C
-with steam : 280 °C
Compressibility (ASTM F36/J) : 8%
Recovery (ASTM 36J) : 55%
Tensile Strength (DIN 52910) : 8N/mm²
-in ASTM Oil No.3 for 5 hrs at 150 °C : 7%

DIMENSIONS OF STANDARD SHEET
Sheet size (mm): 1500 x 1500 | 3000 x 1500 | 4500 x 1500
Thickness (mm): 0.5 | 1.0 | 1.5 | 2.0 | 3.0
Other dimensions and thicknesses are available on request.

Tesnit BA-C

Description

Tesnit BA-C

Composition : Aramid, CSM
Operating Pressure max. : 60 bar
Peak Operating Temperature max.(see note 1) : 200 °C
Continuous Service Temperature (see note 1) : 150 °C
Compressibility (ASTM F36/J) : 8%
Recovery (ASTM 36/J) : 45%
Tensile Strength (DIN 52910) : 10 N/mm²
-in HNO₃ 40% for 18 hours at 23 °C : 10%

Note:
1. All information on this website is meant as a general guide only. The complex nature of sealing applications does not allow any warranty to be given on the use of the information in determining the suitability of a product for a given application.

Tesnit BAR-300

Description

TESNIT® BAR-300 has outstanding dynamic and thermal resistance. TESNIT® BAR-300 is designed for use in high temperature applications, like those within ships’ engines.

COMPOSITION
Engineered bio-soluble mineral fibres, inorganic fillers, NBR binder, tough carbon steel wire mesh insert.

PROPERTIES
Material has outstanding dynamic and thermal resistance.

CERTIFICATES
- Germanischer Lloyd

SURFACE TREATMENT
Surface finish is 2G. Optional graphite or PTFE finish on request.

Composition: Inorganic Fiber, NBR, special twill weave mesh
Operating Pressure max: 500 bar
Peak Operating Temperature max: 550 °C
Continuous Service Temperature: 450 °C
Compressibility (ASTM F36/J): 8%
Recovery (ASTM 36/J): 40%
-in ASTM Oil No.3 for 5 hrs at 150 °C: 5%

DIMENSIONS OF STANDARD SHEET
Sheet size (mm): 500 x 1400 | 1000 x 1400
Thickness (mm): 0.7 | 1.0 | 1.2 | 1.4 | 2.0 | 2.5 | 3.0
Other dimensions and thicknesses are available on request.

Tesnit BA-R (Armit)

Description

TESNIT® BA-R has very good mechanical properties (resistance to high internal and surface pressure). TESNIT® BA-R is designed for the automotive and engine-building industries.

COMPOSITION
Aramid fibres, inorganic fillers, NBR binder, carbon steel wire mesh insert.

**PROPERTIES**
This material combines very good resistance to high internal and surface pressure, with good thermal properties. It has high bolt torque retention.

**CERTIFICATES**
- BAM (Oxygen)
- Germanischer Lloyd

**SURFACE TREATMENT**
Surface finish is 2G. Optional graphite or PTFE finish on request.

Composition: Aramid, NBR, high density woven steel mesh

Operating Pressure max: 140 bar

Peak Operating Temperature max.: 400 °C

Continuous Service Temperature): 350 °C

- with steam: 230 oC

Compressibility (ASTM F36/J): 7%

Recovery (ASTM 36J): 50%

Tensile Strength (DIN 52910): 15N/mm²

- in ASTM Oil No.3 for 5 hrs at 150°C: 10%

**DIMENSIONS OF STANDARD SHEET**

Sheet size (mm): 1000 x 1500 | 1500 x 1500 Thickness (mm): 1.0 | 1.5 | 2.0 | 3.0 Other dimensions and thicknesses are available on request.

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**Tesnit Kemit-Super For aggressive media**

**Description**

Tesnit Kemit-Super For aggressive media

For high pressure applications in the chemical industries, also suitable for ceramic and glass flanges.

**Colour**: White

**Binder**: Hyperlon

**Pressure**: 20 bar

**Temperature**: 150 oC

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**PTFE Material**

**Description**

PTFE Material

PTFE’s high chemical resistance against a wide spectrum of different mediums makes it an exceptional sealing material for aggressive fluids. Altona stocks pure PTFE gaskets and PTFE materials for a wide range of applications.

**Sealrite PTFE**
Pure PTFE
PTFE’s high chemical resistance against a wide spectrum of different mediums makes it an exceptional sealing material for aggressive fluids. Altona manufactures pure PTFE gaskets and PTFE materials for a wide range of applications:

Pure PTFE Rings & Customised Parts:
Pure PTFE is formed into rings to fit standard flanges or it may be made to customer specified dimensions. It is suitable for a wide range of applications which includes O-rings, glide rings for internal sealing and piston stepped rings.

Pure PTFE Envelopes:
Pure PTFE envelopes are used as an external protective jacket for conventional gasket materials like rubber. They are of three basic types:
“Slit” Type or Type V in which the gasket is slit to a V shape
“Square ” type or Type M where the gasket is machined so that the inner base is flat.
“Folded” type or Type U where the inner base is rounded like a U.

Graphite Material

Graphite Material
Pure expanded mineral graphite products provides an excellent gasket material for high temperature, high pressure applications or for applications where the gasket width is relatively narrow. The material is resistant to most organic and inorganic acids and is suitable to seal a very wide range of media. It is almost completely impermeable to gases and fluids and is commonly used in very demanding application where low emission is paramount. The material have no ageing or embrittlement problems common with elastomeric based materials and displays long term stability of compressibility and recovery over a wide temperature range. Graphite however is not suitable for use with very strong oxidising compounds like highly concentrated nitric acid or chromic acid.

Sealrite Expanded Graphite Material
Pure expanded mineral graphite products provides an excellent gasket material for high temperature, high pressure applications or for applications where the gasket width is relatively narrow. The material is resistant to most organic and inorganic acids and is suitable to seal a very wide range of media. It is almost completely impermeable to gases and fluids and is commonly used in very demanding application where low emission is paramount. The material have no ageing or embrittlement problems common with elastomeric based materials and displays long term stability of compressibility and recovery over a wide temperature range. Graphite however is not suitable for use with very strong oxidising compounds like highly concentrated nitric acid or chromic acid.

Expanded Graphite Sheets
Sealrite expanded graphite sheets is made from pure mineral graphite and formed into sheets through a laminar process. Commonly used for gaskets for flanges and connections in demanding application or as an asbestos gasket substitute. Sealrite offers expanded graphite sheets in the following styles:
Style 188: Pure homogeneous expanded mineral graphite
This style offers the highest temperature rating for inert or reducing environment of up to 2000°C
Style 388: Expanded mineral graphite with steel foil sheet reinforcement
The steel foil insertion allows for better handling and higher operating pressure
Style 488: Expanded mineral graphite with tanged stainless steel 316 reinforcement
Stainless Steel 316 sheet allows the material to achieve substantially higher dynamic loading giving it a high blow out resistance and
Tesnit BA-203

Description

Tesnit BA-203

TESNIT® BA-203 is designed for less demanding applications particularly for shipbuilding. TESNIT® BA-203 also has good thermal resistance.

COMPOSITION
Aramid fibres, inorganic fillers, NBR binder. Optional steel wire mesh insert on request.

PROPERTIES
Material with good thermal resistance, designed for less demanding applications.

CERTIFICATES
Germanischer Lloyd

SURFACE TREATMENT
Surface finish is 2AS. Optional graphite or PTFE finish on request.

Composit : Aramid, NBR
Operating Pressure max. : 50 bar
Peak Operating Temperature max. : 300 °C
Continuous Service Temperature : 200 °C
- with steam : 160 °C
Compressibility (ASTM F36/J) : 9%
Recovery (ASTM 36J) : 55%
Tensile Strength (DIN 52910) : 11N/mm2
- in ASTM Oil No.3 for 5 hrs at 150 °C : 5%

DIMENSIONS OF STANDARD SHEET
Sheet size (mm): 1500 x 1500 | 3000 x 1500 | 4500 x 1500
Thickness (mm): 0.5 | 1.0 | 1.5 | 2.0 | 3.0
Other dimensions and thicknesses are available on request.

Tesnit BA-50

Description

Tesnit BA-50

TESNIT® BA-50 has good thermal and chemical resistance, which makes it appropriate for use in a wide range of applications. TESNIT® BA-50 is well suited for use with potable water supply and shipbuilding.

COMPOSITION
Aramid fibres, inorganic fillers, NBR binder.
Optional steel wire mesh insert on request.

PROPERTIES
Material has good thermal, chemical, and dynamic resistance.
CERTIFICATES
- DIN-DVGW DIN 3535-6
- SVGW DIN 3535-6
- DVGW KTW
- DVGW W270
- Germanischer Lloyd
- TA-Luft (VDI 2440)
- WRAS
- EC 1935/2004

SURFACE TREATMENT
Surface finish is 4AS. Optional graphite or PTFE finish on request.

Composite: Aramid, NBR
Operating Pressure max.: 80 bar
Peak Operating Temperature max.: 300 °C
Continuous Service Temperature: 220 °C
-with steam: 180 °C
Compressibility (ASTM F36/J): 8%
Recovery (ASTM 36J): 45%
Tensile Strength (ASTM 3610): 9N/mm²
-in ASTM Oil No.3 for 5 hrs at 150 °C: 10%

DIMENSIONS OF STANDARD SHEET
Sheet size (mm): 1500 x 1500 | 3000 x 1500 | 4500 x 1500
Thickness (mm): 0.5 | 1.0 | 1.5 | 2.0 | 3.0
Other dimensions and thicknesses are available on request.

Tesnit BA-U

Description
Tesnit BA-U

TESNIT® BA-U combines very good thermal, chemical, and mechanical properties that makes TESNIT® BA-U as a general-purpose gasket material. It is well designed for gas and potable water supplies.

COMPOSITION
Aramid fibres, inorganic fillers, NBR binder. Optional steel wire mesh or expanded steel insert on request.

PROPERTIES
Material for general purpose with good mechanical and thermal properties and low gas permeability.

CERTIFICATES
- DIN-DVGW DIN 3535-6
- SVGW DIN 3535-6
- DVGW VP 401
- DVGW KTW
- DVGW W270
- TA-Luft (VDI 2440)
- BAM (Oxygen)
- WRAS
- Germanischer Lloyd
- ABS
- AGA 8140 G (Class III)
- EC 1935/2004
SURFACE TREATMENT
Surface finish is 4AS. Optional graphite or PTFE finish on request.

Composite: Aramid, NBR
Operating Pressure max.: 100 bar
Peak Operating Temperature max.: 400 °C
Continuous Service Temperature: 250 °C
- with steam: 200 °C
Compressibility (ASTM F36/J): 8%
Recovery (ASTM 36J): 55%
Tensile Strength (DIN 52910): 11 N/mm²
-in ASTM Oil No.3 for 5 hrs at 150 °C: 5%

DIMENSIONS OF STANDARD SHEET
Sheet size (mm): 1500 x 1500 | 3000 x 1500 | 4500 x 1500
Thickness (mm): 0.5 | 1.0 | 1.5 | 2.0 | 3.0
Other dimensions and thicknesses are available on request.

Tesnit Armit For dynamic load applications

Description

Tesnit Armit For dynamic load applications
Steel wire-reinforced for highest fluctuating pressures and temperatures and extreme services, for oils, fuels, lubricants, solvents, steam, water, air and gases.

Colour: Grey
Binder: NBR, wire reinforced, graphited
Pressure: 200 bar
Temperature: 550 °C

Tesnit Solvenit For oil, gas and petro-chem

Description

Tesnit Solvenit For oil, gas and petro-chem

High quality with excellent resistance against hydro-carbons, solvents, oils fuels, lubricants, aromatics and freons.

Colour: Grey
Binder: NBR
Pressure: 130 bar
Temperature: 500 °C
Tesnit Unit Very high pressure & temperature

Description

Tesnit Unit Very high pressure & temperature

High quality for highest pressures and temperatures suitable for hydrocarbons, solvents, oils, fuels, alkalis or other media.

Colour : Blue
Binder : NBR
Pressure : 150 bar
Temperature : 550 °C

Tesnit 4xA High pressure & temperature

Description

Tesnit 4xA High pressure & temperature

High quality for high pressures and temperatures suitable for super heated and saturated steam, hydro-carbons, solvents, oils, fuels, gases, hydraulics, compr.air and some chemicals.

Colour : Red
Binder : NBR
Pressure : 130 bar
Temperature : 550 °C

Tesnit 25 General purpose jointing

Description

Tesnit 25 General purpose jointing

General purpose jointing for medium pressures and temperatures, steam, hydraulics, air, gases, oils and other non-aggressive media.

Colour : Red standard or graphited
Binder : SBR
Pressure : 45 bar
Temperature : 450 °C
Tesnit 10 General purpose jointing

Description

Tesnit 10 General purpose jointing

General purpose jointing for lower pressures and temperatures, steam, hydraulics, air, gases oils and other non-aggressive media.

Colour: Red standard or graphited
Binder: SBR
Pressure: 30 bar
Temperature: 350 °C
Permissable Surface Stress: 80N/mm²
Compressibility - ASTM F36-66: 9%
Recovery - ASTM F36-66 min: 50%
Compressed Synthetic Fiber (CSF) Non-Asbestos Materials

Description

Tesnit’s BA range is the most comprehensive range of Compressed Synthetic Fiber materials available for sealing applications. These non-asbestos materials are the direct results of Donit Tesniti’s decades of intensive R & D efforts. Materials are suitable for temperatures up to 600°C and 500 bar.

Tesnit Gasket Material - Non Asbestos Gasket material

Chemical Resistance Chart 1

http://www.altonashop.com/tech_support/tesnit_chem_chart1.html

Chemical Resistance Chart 2

http://www.altonashop.com/tech_support/tesnit_chem_chart2.html

Chemical Resistance Chart 3

http://www.altonashop.com/tech_support/tesnit_chem_chart3.html

Certificates for TESNIT Non-Asbestos Gasket materials of DONIT TESNIT d.d.

http://www.altonashop.com/tech_support/tesnit_ba_certs.html

ISO 9001 Certificate

http://www.altonashop.com/tech_support/tesnit_iso9001.html

Compressed Asbestos Fiber (CAF) Asbestos Sealing Material

Description

For over five decades Tesnit has been manufacturing CAF sealing materials to the highest quality standards. Investment in advance machinery and R & D have resulted in safer and more efficient production methods. This translates to products whose performance often rivals the best in the market at a fraction of their cost.
Tesnit

Description

Donit Tesniti have been manufacturing compressed jointing sheets in Europe since 1946. With over fifty years of dedicated experience, Tesnit has become a hallmark for quality and performance. Tesnit products are sold in over 50 countries and are the most affordable high quality range of compressed sealing materials in the market today.

A commitment to technology, an investment in our Future.

Donit Tesniti allocates considerable resources into technology. R & D investment is intensive and conducted in advance laboratories. Plant machinery are cutting edge and leverages computers for optimum efficiency. This not only translates into the best products money can buy at the lowest possible prices, it is also an investment into our future. R & D has yielded safer, higher performance products that is environmentally sound. Investments in high performance computerised adsorption equipment means less emission. Digital mixers means consistent product quality but more importantly less wastages and hence help conserve limited world resources. Tesnit makes sealing products that safeguards our future.

Alafia (M) Sdn. Bhd.

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