TEFLEX GASKET CO.,LTD.

Address:CIE Industrial Zone,Cixi City,Zhejiang, China
Tel: +86-0574-63036939 Fax:+86-0574-63036850
Web: www.teflexgasket.com Email:info@teflexgasket.com

TEFLEX

PTFE PRODUCTS
METALLIC GASKET
GASKET SHEET
GLAND PACKING

TEFLEX GASKET CO.,LTD.

TEFLEX

COMPANY PROFILE

TEFLEX GASKET Company Limited is a private enterprise whom specializes in Multi-directional Expanded PTFE, Filled PTFE, Virgin PTFE product, Sealing Gasket.

Our company located in Cixi City which is near by Ningbo port and Shanghai port.We have many years experience of exportation with advanced technology of PTFE and Gaskets product manufacturing, we also have plenty first-class sources to provide us raw materials with good quality. During the past years, our PTFE products have approval of FDA, ROHS inspections.

Teflex's target is to satisfy our customers with excellent quality, competitive price, fast delivery and outstanding service. To grow and develop with clients together is our great expectation.

Main market : Europe, North America, South America, Africa Middle East, etc.

Main product: Multi-directional Expanded PTFE Sheet, Filled PTFE Sheet,
Multi-directional Expanded PTFE gasket tape, Expanded PTFE Joint Sealant tape,
Virgin PTFE Gasket Sheet , Spiral Wound Gasket, Ring Joint Gasket, Gland Packings,
Free-Asbestos Joiting Sheet etc.

MULTI-DIRECTIONAL EXPANDED PTFE SHEET

STYLE NO: TMPS

Multidirectionally expanded PTFE sheet made from 100% PTFE
This special manufacturing process results in almost equal tensile strength in in all directions.
Also this material is easier to compress and minimizes creep and cold flow.

Applications

- Aerospace
- Petrochemical
- General Chemical
- Pulp and Paper
- Food and Beverage
- Power Generation

Advantages

- Good chemical resistance
- Resistance to cold flow
- Excellent mechanical strength
- Reliable sealing
- Flexible-& easy cutting
- Clean and non-toxic

COMPLIES TO FDA21 CFR177.1550

PHYSICAL PROPERTIES

Item	Standard
Temperature	-240°C to 260°C
Operation Pressure	Vacuum to: 3000 psi
Color	White
pH	0-14*
Density	0.75-0.85 g/cm3
Sealability-ASTM F37B ml/hr	0.17
Compression- ASTM F 36 M %	63.4
Recovery - ASTM F36 %	9.1
Stress Relaxation- ASTM F38 %	37.1
Complies to FDA21 CFR177.1550	

GENERAL SIZE

Thickness (mm)	Thickness Tolerance(mm)	Size(mm)	Size Tolerance(mm)
0.5	±0.10	1500 x 1500	±10
1	±0.15	1500 x 1500	±10
1.5	±0.20	1500 x 1500	±10
2	±0.20	1500 x 1500	±10
3	±0.30	1500 x 1500	±10
4	±0.30	1500 x 1500	±10
5	±0.30	1500 x 1500	±10
6	±0.30	1500 x 1500	±10

Also we can supply 3000 x 1500mm and 4500 x 1500mm,Thickness:0.5-7mm

INQUIRY / ORDER EXAMPLE

Size	Qty
1.5mm x 1500mm x 1500mm	10sheets
3.0mm x 1500mm x 4500mm	5sheets

MULTI-DIRECTIONALLY EXPANDED PTFE GASKET TAPE

Style No:TMGT

Multi-Directionally Expanded PTFE Gasket Tape is a multidirectionally expanded PTFE gasket tape, produced from 100% pure PTFE . This special manufacturing process results in almost equal tensile strength in both the longitudinal and cross direction. As a result of this, the material does not change its width under compression. This is in stark contrast to normal expanded PTFE tapes .

Applications

- Aerospace
- Turbonator
- Heat Exchangers
- Pressure Vessels
- Large Flanges
- Vessel Flanges
- Tank Flanges
- Large Piping
- Baffles
- Other special-shape jar sealing

Advantages

- Quick and simple installation
- No cutting
- Easily removed
- Without leaving any deposits
- Good chemical and thermal stability
- No material waste
- Low stock cost

PHYSICAL PROPERTIES

Density	0.7-0.8g/cm³
Temperature	-240°C to 260°C
Tensile Strength	> 18MPA
Color	White
pH	0-14
Pressure Vacuum up to	2900 psi (200 bar)
Compressibillity ASTM F36	> 60%
Recovery ASTM F36	> 8%

COMPLIES TO FDA21 CFR177.1550

PTFE Joint Sealant is an inorganic sealant
for static applications made of 100% PTFE.
And the taple is with one side adhesive.
It has excellent characteristic, corrosion-resistant, flexiable,convenient. It's also used for seals in glass, enamel, flanges etc.

Type	Raw Material	Adehsive
Multi-Directional	DUPONT,3M,DAIKIN	TESA,3M
Mono-Directional	DUPONT,3M,DAIKIN	3M

PTFE SHEET SHEET

Style No: TPS

PTFE products include sheet,Tube,Rod,Film and gaskets etc.,they are molded, skived or cut from 100% virgin PTFE.It has the best chemical corrosion resistance among known plastics.Without being aging, lowest friction coefficient,wear resistance.

The unloaded operatin g temperature ran ge is -180~+260°C.

1.PTFE MOLDED SHEET

PTFE molded sheet is manufactured by molding with PTFE granular resin.PTFE is the most chemical resistance of all know plastics .It does not age.It has the lowest coefficient of friction of all know solid materials.

USAGE OF THE PRODUCT

It can be used to make corrosion-resistant liner,seal,lining and gasket,scrap,guide rail,dielectric material for different .

PHYSICAL PROPERTIES

Item	Standard
Tensile strength	≥ 15.0 Mpa
Ultimate elongation	150 ~ 400 %
Density	2.2 ~ 2.3 g/cm^3
Dielectric strength	10 kv/mm
Resistance of surface	3.7 x 10^{16} Ω

Width/mm	Thickness/mm	Tolerance /mm
250 ~1200	3 ~ 100	±0.20 ~ ±0.50

2.PTFE SKIVED SHEET

PTFE skived sheet is manufactured by PTFE resin is first molded into work -blank and skiving.

USAGE OF THE PRODUCT

PTFE skived sheet are used in reaction kettle,storage tank,valve,container,liner and gasket which work under all kinds of corrosive dielectric.It also can be used as liner of anticorrosive pipes,oilless lubricator and adhesive material for sliding orbit of machines and dielectric at any frenquencies.

PHYSICAL PROPERTIES

Item	Standard
Tensile strength	≥ 15.0 Mpa
Ultimate elongation	≥ 150 %
Density	2.2 ~ 2.3 g/cm^3
Dielectric strength	10kv/mm
Resistance of surface	3.7 x 10^{16} Ω

Width/mm	Thickness/mm	Tolerance /mm
400-2500	1-3	±0.2
400-2500	4-5	±0.3

PTFE ENVELOPE GASKET

Style No: TPE

PTFE Envelope Gasket with a good quality product filled with filler that have excellent compressibility and recovery inside, is coated with PTFE that have excellent chemical-resitance and stress-relaxation is small in high load, have a excellent seal ability.

PROPERTIES

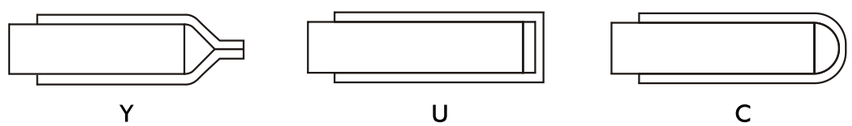
- Outstanding media resistance (especially for highly corrosive media)
- No ageing or brittleness
- Very low minimum surface pressure
- Very good adaptability
- Very good handling (transport, assembly and dismantling)
- No product contamination
- Good adjustment and elastic recovery properties
- Good long-term properties

APPLICATIONS

- Preferred for low leakage rates for gases and liquids
- For high pressure-temperature combinations
- For highly corrosive media
- For high flange unevenness
- For high requirements for cleanliness
- For seal connections with low surface compression
- For FDA applications
- For plastic, enamel or rubber flanges
- For flanges sensitive to tension and flexibility

PTFE Envelope Gaskets are available in a wide variety of models.

TYPICAL MODELS:



Core: Graphite, Asbestos Joiting, Non Asbestos Joiting, Rubber, Mill board etc.
Supplying Size: DN 10-600mm / NPS 1/2"~24" or custom-made size
Temperature range: -180ºC - 260ºC
Pressure: ≤4Mpa

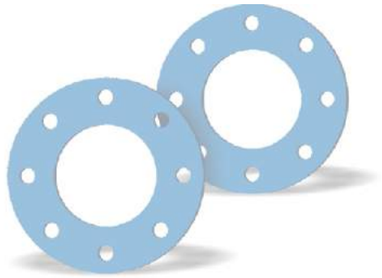
FILLED PTFE SHEET GASKET

TX 100

- **Speciality:**the most tightly sealing,reduce creed relaxation, excellent bolt torque performance,chemical resistance.
- **Stuffing:**glass microspheres
- **Applicable conditions medium:**

1. Moderate concentration of acid ,some corrosion,hydrocarbons, solvents,water,refrigerants,cryogenic materials,hydrogen peroxide;
2. Acetic acid pharmaceutical clean pipelines,glass lining flanges have better surface roughness,surface defects,uneven flanges, heat exchangers,etc.

- **Applicable industries:**chemicals,pharmaceuticals, etc.



TX 200

- **Speciality:**the most tightly sealing,reduce creep relaxation, better ante-leakage performance,chemical resistance.
- **Stuffing:**Silicon dioxide
- **Stuffing:**Micro glass
- **Applicable conditions media**:

1. Strong acid (except hydrofluoric acid),solvents,Hydrocarbons, water,steam,chlorine,cryogenic mayerials;
2. Polycrystalline silicon (except hydrofluoric acid).

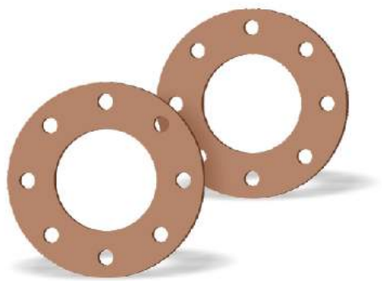
- **Applicable industries:**chemicals.

TX 300

- **Speciality:**the most tightly sealing,reduce creep relaxation, better anti-leakage performance,Chemical resistance.
- **Stuffing:**Silicon dioxide
- **Applicable conditions medium:**

1. Strong acid(except hydrofluoric acid),solvents,Hydrocarbons, water,steam,chlorine,cryogenic materials;
2. Polycrystalline sililcon(except hydrofluoric acid).

- **Applicable industries:**chemicals.



TX 400

- **Speciality:**the most tightly sealing, reduce creep relaxation,chemical resistance.
- **Stuffing:**Banrium sulfate
- **Applicable conditions medium:**

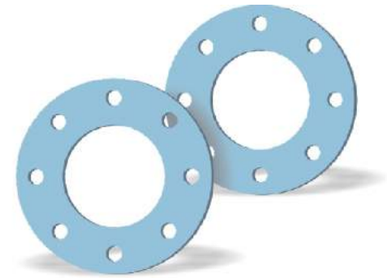
1. Strong corrosion,neutral acid ,cholrine,gas water,steam, hydrocarbons,cryogenic materiale,and aluminum fluoride;
2. Alkaline,chlorine occasions.

- **Applicable industries:**chemicals,paper industry.

FILLED PTFE SHEET GASKET

TX 500

- **Speciality:**the most tightly sealing,to improve on traditional PTEE material
- **Stuffing:**Glass fibre performance,reducing creep relaxation and product leakage,chemical resistance.
- **Application:**chemicals.



TX 600

- **Speciality:**good creep resitance,resistance to chemical attack.
- **Stuffing:**Glass fibre
- **Application:**suitable for all kinds of seals, lining insulation,scraping deposit,rail industries.

TX 700

- **Speciality:**heat resistance,chemical resistanceang resistance to cold flow.
- **Stuffing:**Kaoline
- **Application:**suitable for varius chemicals (high concentration of hot sulfric acid,hot nitric acid,etc.) Gaskets for the pipelines.

BASIC PHYSICAL AND MECHANICAL PROPERTIES

	Unit	Standard	TX 100	TX 200	TX 300	TX 400	TX 500	TX 600	TX 700
Colour		Na	Blue	Yellow	Brown	white	Blue	Light Grey	Light Brown
Density	g/cm3	ASTM D792	1.55 ~ 1.65	2.1 ~ 2.3	2.1 ~ 2.3	2.5 ~ 2.9	2.1 ~ 2.3	2.1 ~ 2.3	2.1 ~ 2.3
Stuffing			glass microspheres	Silicon dioxide	Silicon dioxide	Banrium sulfate	Glass fibre	Glass fibre	Kaoline
Tensile Strength	Mpa	ASTM F152	≥ 10	≥ 20	12	8	13.8	12	18
Compression Ratio	%	ASTM F36	≥ 16	≥ 10	10	8	10	10	10
Recovery	%	ASTM F32	≥ 30	≥ 30	30	30	30	30	30

SPIRAL WOUND GASKET

Style No:TMS

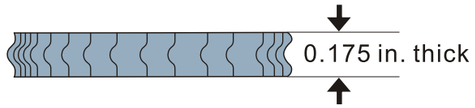
Spiral wound gaskets have to recover under the action of fluctuating loads caused by process fluid pressure and temperature changes,flange face temperature variations, flange rotation,bolt stress relaxation and creep.

The gasket-sealing element consists of a pre-formed metallic winding strip with layers of a softer,more compressible sealing material which, during compression, is densified and flows to fill imperfections in the flange surfaces when the gasket is seated. The metal strip holds the filler giving the gasket mechanical resistance and resilience. Spiral wound gaskets can be manufactured from a range of filler materials according to different service conditions.

Filler Material	Maximum	ASME B16.20 Colour
Graphite	550℃	Grey
PTFE	260℃	White
Nonas	350℃	Pink
Mica	1000℃	Light Green
Winding	Maximum	ASME B16.20 Colour
Carbon Steel	500℃	Silver
S S304	650℃	Yellow
S S316	800℃	Green
Duplex	800℃	N/A
S S347	870℃	Blue
SS321	870℃	Turquoise
Monel 400	800℃	Orange
Nickel 200	600℃	Red
Titanium	540℃	Purple
Hastelloy B-2	1000℃	Brown
Hastelloy C-276	1000℃	Beige
Inconel 600	1000℃	Gold
Inconel 625	1000℃	Gold
Inconel X-750	1000℃	Light Grey
Incoloy 825	1000℃	White

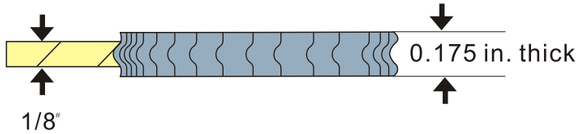
TYPE CR

TMS spiral wound sealing element
Solid metal outer ring used as a centring device and compression stop
Used mainly on raised face and flat face flanges
General Duties



TYPE RIR

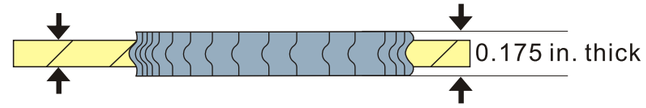
TMS spiral wound sealing element
Solid metal outer ring
High pressure temperature capability
Male to female flanges
General and critical duties



Outside Centering Ring

TYPE CRIR

TMS spiral wound sealing element
Solid metal inner & outer ring suitable for high pressure and temperature applications
Raised face or flat flanges
Prevents turbulence and erosion damage to flange
Prevents damage to the gasket bore and inner windings
Acts as a heat shield
Acts as a corrosion barrier
General and Critical Duties



1/8" (Typ)

Outside Centering Ring Inner Ring

RING JOINT GASKET

Style No:TMR

Ring Joint Gaskets are heavy duty, high-pressure gaskets largely used in offshore petrochemical applications. They are precision-engineered components designed to be used in conjunction with precision-machined flanges. All our Ring Joints are manufactured according to ASME B16.20 and API 6A.

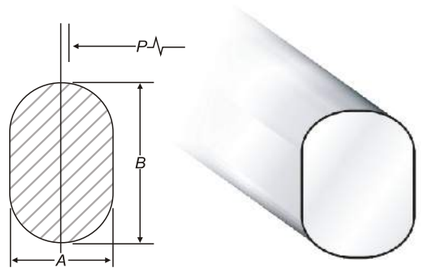
Type	Nominal Pipe Size	Class Ratings
R Oval Octagonal	½" to 24" 26" to 36" 1½" to 20"	150 to 2500 ASME B16.20 300 to 900 ASME B16.20 Series A API 6A
RX	1 1/2" to 24" 26" to 36"1 ½ " to 20"	720 to 5000 ASME B16.20 300 to 900 ASME B16.20 Series A API 6A
BX	1 11/16" to 21 1/4"	5000 to 20000 ASME B16.20

COMMON MATERIALS

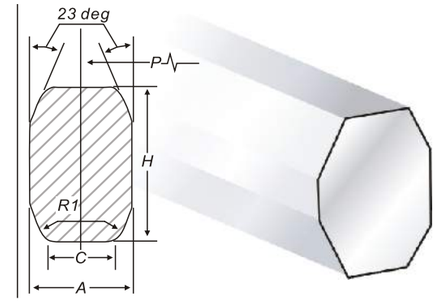
Material	Brinell Hardness	Temperature Limitation	Identificati on
Soft Iron	90	-60 to 500℃	D
Low Carbon Steel	120	-40 to 500℃	S
4-6% Cr 1/2 %Mo	130	-250 to 500℃	F5
304	160	-250 to 550℃ -110 to 550℃	S304
316	160	-250 to 550℃	S316
321	160	-250 to 550℃	S321
347	160	-20 to 500℃	S347
410	170	450℃	S410
Monel (N04400)	135	400℃	N04400
UNS N08904	180	450℃	904L
Inconel 625	-	450℃	625
Incoloy 825	-	450℃	825
Hastelloy C-276	-	450℃	C-276
Titanium	-	450℃	TI

The gasket material is selected on a number of grounds primarily; chemical compatibility with the media and the hardness of the flange. The gasket material ideally needs to be roughly 30 Brinell less than the flange material to ensure sufficient deformation of the gasket without damaging the flange facing.

R OCTAGONAL AND OVAL RING GASKETS TO SUIT ASME B16.20 AND API 6A

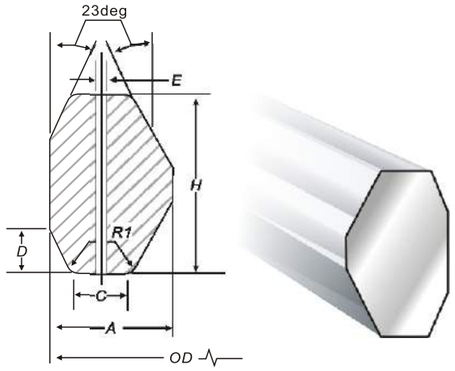


OVAL

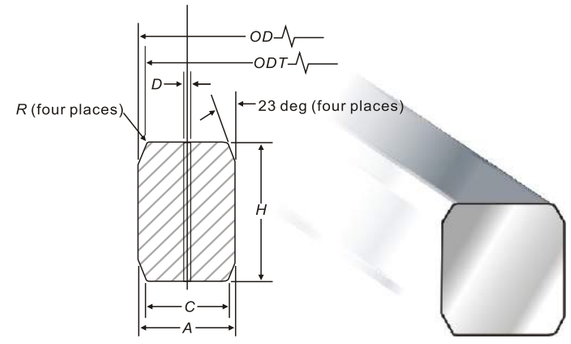


OCTAGONAL

RX RING DESIGNATIONS FOR API 6B FLANGES

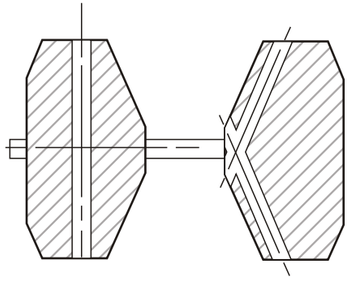


BX RING DESIGNATIONS FOR API 6BX FLANGES



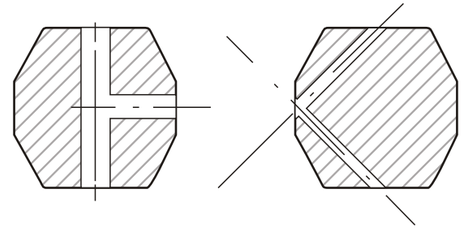
SPECIAL RTJ GASKET TO SUIT SUBSEA APPLICATIONS API-17D

API SRX RTJ



OPTION A OPTION B

API SBX RTJ



OPTION A OPTION B

KAMMPROFILE GASKET

Style No: TMK

Kammprofile Gasket is a composite gasket, which utilises a serrated metal core with a soft facing material. The metal core is a machined on each contact face with concentric serra-tions which provide high pressure areas, ensuring that the soft coating flows into any imperfections in the flange even at relatively low bolt loads. The result is a gasket, which combines the benefits of soft, cut materials with the advantages of seal integrity associated with metallic gaskets.

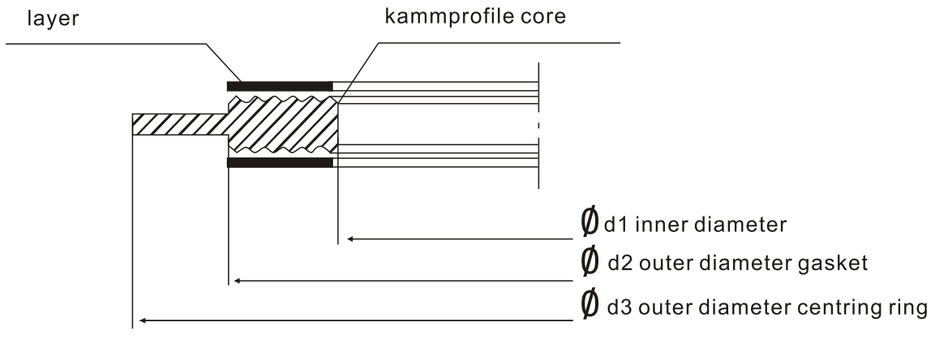
Facing Material	Maximum Temperature
Graphite	550°C
ePTFE	260°C
Mica	1000°C

Kammrpofile gaskets can also be manufactured from a range of core materials according to media compatibility and temperature considerations.

Core Material	Maximum Temperature
Stainless Steel 316L	550°C
Stainless Steel 304	550°C
Monel 400	600°C
Nickel 200	600°C
Inconel 600	900°C
Inconel 625	450°C
Incoloy 825	450°C
Hastelloy B-2	450°C
Hastelloy C-276	450°C
Titanium	350°C

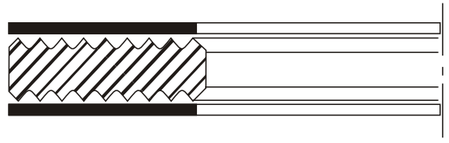
Expanded graphite is the most common facing material used for Kammprofile gaskets. However, other materials can be used, such as PTFE for chemically aggressive duties or mica for high temperature duties.

CONSTRUCTION



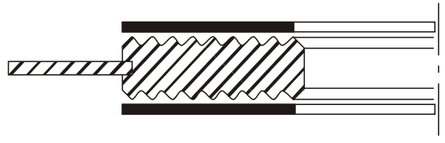
TYPICAL STYL

kammprofile without centring edge for tongue and groove



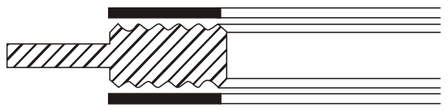
TMK-A

kammprofile with lose centering ring, thickness1.5mm



TMK-B

kammprofile with cranked centring ring and predetermined dreaking point



TMK-C

GENERAL PROPERTIES OF KAMMPROFILE GASKET

1.Have a wide range of seating stresses under which the seal is effected and maintained.

2.Can be used when there is insufficient bolt load to seal conventional gasket materials.

3.Easy to handle and fit.

4.Suitable for a wide range of operating conditions.

5.The soft facing layer prevents damage to the flange.

6.Provide a high integrity seal including thermocycling and shock loading conditions

7.Sealing is not sensitive to uneven bolt loading conditions

8.Can be refurbished with a new facing layer and reused

APPLICATIONS OF KAMMPROFILE GASKETS

1.Heat Exchanger and Vessel applications

2.High and low temperatures

3.Pressures of up to 250 bar

4.Low bolt loads

5.Small flange widths

6.Damaged flanges

INQUIRY / ORDER EXAMPLE

Size	Pressure	Material	Qty
2”	300#	4.0mm TK SS316L core	100pcs
DN50	PN40	with Loose Guide Ring. 0.5mm TK Graphite Layer	100pcs

GLAND PACKING

PTFE PACKING GRAPHITED WITH OIL

Density:1.35-1.5 g/cm³
Temperature:-212°C °to 288 °C
pH Range:0 to 14
Speed:15 m/s
Pressure:
Pump: 4000 psi/ 275 bar
Valve: 300 psi /20 bar
Material: PTFE filament w/graphite,lubricating oil
Construction: lattice braid

PURE PTFE PACKING

Density:1.3-1.45 g/cm³
Temperature:-268°C °to 260 °C
pH Range:0 to 14
Speed:10 m/s
Pressure:
Pump: 300 psi/ 20 bar
Valve: 4000 psi /275 bar
Material: PTFE filament, PTFE dispersion, lubricating oil
Construction: lattice braid

ACRYLIC PACKING

Density:1.35-1.45 g/cm³
Temperature:-100°C °to 260 °C
pH Range:0 to 14
Speed:12 m/s
Pressure:
Pump: 725 psi/ 50 bar
Valve: 2900 psi /200 bar
Material: Acrylic fiber, PTFE dispersion, lubricating oil
Construction: lattice braid

PTFE GRAPHITE PACKING ARAMID CORNERS

Density:1.35-1.5 g/cm³
Temperature:-212°C °to 288 °C
pH Range:2 to 12
Speed:12.5 m/s
Pressure:
Pump: 500 psi/ 34 bar
Material: expanded PTFE w/graphite,Aramid, lubricating oil
Construction: lattice braid

PURE GRAPHITE PACKING

Density:1.05-1.15 g/cm³
Temperature:-240°C °to 455 °C
pH Range:0 to 14
Speed:20 m/s
Pressure:
Pump: 400 psi/ 27.5 bar
Valve: 4300 psi /296 bar
Material: flexible graphite
Construction: lattice braid

TANK LID PACKING

Density:0.8-1.0 g/cm³
Temperature:-50°C ° to 260 °C
pH Range:0 to 14
Speed:10 m/s
Pressure:
Pump: 150 psi / 10.5 bar
Valve: 200 psi / 13.5 bar
Material: silicone rubber, acrylic fiber ,
PTFE dispersion, lubricating oil
Construction: lattice braid

ARAMID PACKING

Density:1.35-1.45 g/cm³
Temperature:-240°C ° to 260 °C
pH Range:2 to 12
Speed:10 m/s
Pressure:
Pump: 500 psi / 34 bar
Material: Aramid, PTFE, lubricating oil
Construction: lattice braid

CARBON FIBER PACKING

Density:1.1-1.2 g/cm³
Temperature:-100°C °to 260 °C
pH Range:1 to 13
Speed:15 m/s
Pressure:
Pump: 725 psi / 50 bar
Valve: 3625 psi / 250 bar
Material: carbon fiber , PTFE dispersion,
Construction: lattice braid

FREE ASBESTOS GASKET SHEET

Free Asbestos Jointing Sheet is made from Kevla fibre,synthetic rubber,filling material and dye,compressed and calendered under high temperature and pressure into a sheet form. It eliminates asbestos-rubber sheet essentially and thoroughly.

		STYLE			
		TFA150	TFA200	TFA250	TFA300
ITEM	UNIT				
Density	G/cm3	1.90±0.1	1.80±0.1	1.80±0.1	1.70±0.1
Temperature	℃	≤150	≤200	≤250	≤300
Tensile Strength ASTMF-152	Mpa	≥6.0	≥7.0	≥8.0	≥9.0
Compression Rate ASTMF-36	%	7~17	7~17	7~17	7~17
Recovery Rate ASTMF-36	%	≥30	≥40	≥40	≥40
Leakage Rate ASTMF-37	Ml/min	≤2.0	≤1.0	≤1.0	≤1.0
Greep Relaxation Rate ASTMF-38B	%	≤40	≤40	≤35	≤35
Soft property	Bend in a round bar of 12 times the nominal thickness of the sample				

NORMAL CHARACTERISTIC

Black,Red,Blue,Green etc.
Available with tin steel,copper,SS304 etc.wire mesh insertion.
Also available with anti-stick or graphite Coating.With your logo on request.

NORMAL SIZE

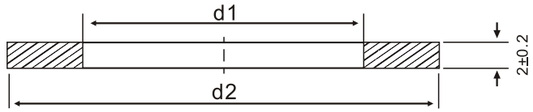
4500 x 1500 x (0.5 – 6.0)mm, 2000 x 1500 x (0.5 – 6.0)mm
1500 x 1360 x (0.5 – 6.0)mm, 3810 x 1270 x (0.5 – 6.0)mm
1270 x 1270 x (0.5 – 6.0)mm, 1500 x 1500 x (0.5 – 6.0)mm

INQUIRY / ORDER EXAMPLE

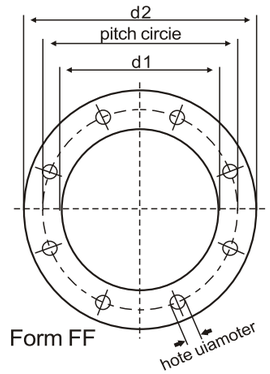
Style	Size	Color	Qty
TFA-150	2000x1500x2.0mm	Red	100sheets
TFA-200	2000x1500x3.0mm	Black	1000kgs

FLAL GASKETS DIMENSIONS FOR

- Flat face and raised face flanges(IBC)
- Male-female flanges (SR)
- Tongue and groove flanges(TG)
- Flanges with screw holes(FF)

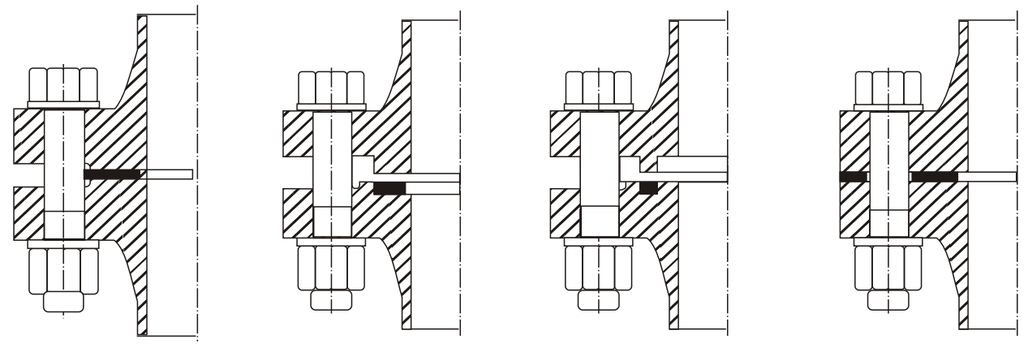


Form IBC,SR,TG



Form FF

FLANGE /GASKET FORMS



Form IBC
flat face and raised face

Form SR
male-female

Form TG
tongue and groove

Form FF
with screw holes

INQUIRY / ORDER EXAMPLE

Size	Pressure	Material	Qty
1”	150#	Free Asbestos Jointing Gasket, TFA250,THK:3.0mm	100pcs
DN20	PN16	Free Asbestos Gasket, TFA300,THK:2.0mm	100pcs