



**Fishbone
Spiral Wound
JMP Fibre Sheets
Modified PTFE
Expanded PTFE
EPDM PTFE
Leakblock
Insulation Sets**

GASKET BROCHURE 2027





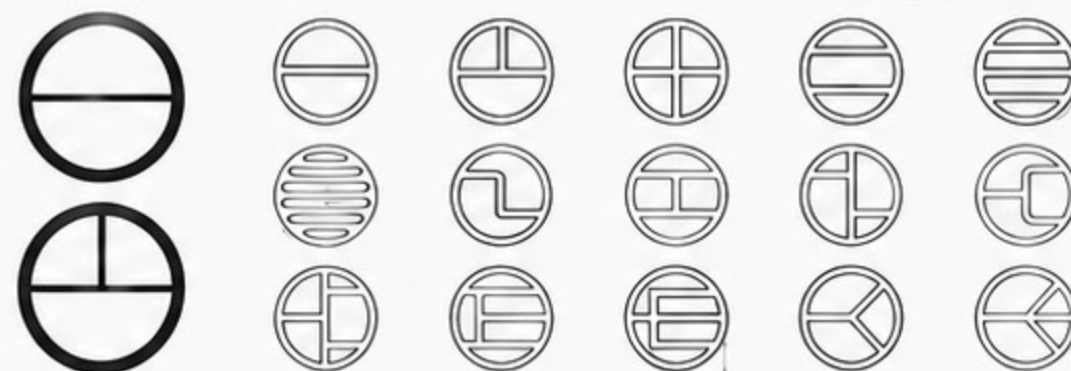
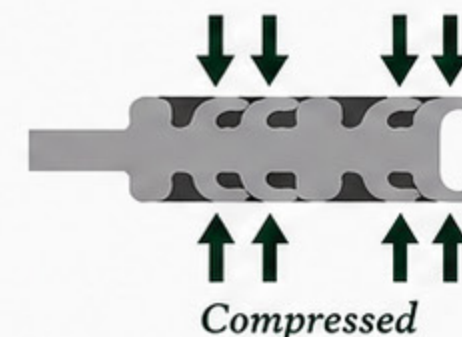
FISHBONE® GASKET for Heat Exchanger



Internationally Patented

STRONG AND RESILIENT

- ✓ Patented **Stop-Step** prevents over compression of gasket
- ✓ Patented **"Bones"** store sealing energy allowing gasket to respond to temperature cycling and changing flange conditions
- ✓ Ultimate sealing performance (TA-LUFT, CFET, API 6FB)



For OEM and maintenance inquiries,
sales@sizonktrading.co.za | www.sizonkegroup.co.za

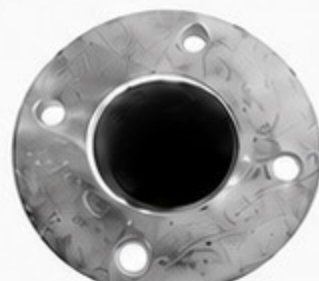


The Ultimate Technology Solution for Valves Sealing

CHANGE THESE



Spiral Wound Gasket
The "un-wind" problem
Elastic but not strong

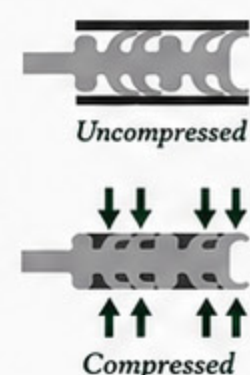


Camprofile Gasket
The "scratching" problem
Strong but not elastic

TO THIS



The FISHBONE® Gasket
A live-loaded metal seal
STRONG AND RESILIENT



- ✓ **1,000,000** times lower leakage than TA-LUFT Test limit
- ✓ **25** times lower leakage than Chevron Fugitive Emissions Test limit
- ✓ **Pass** API 6FB Fire Test

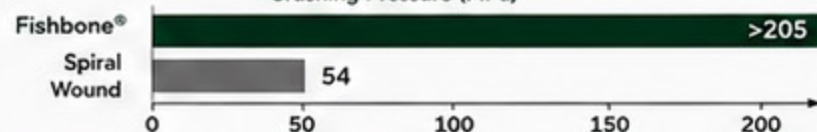
For inquiries about OEM, upgrade and AIGI distributors, please contact:

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COMPARISON

Crush Resistance Test
(Pressure 205 MPa / 29,732 psi)

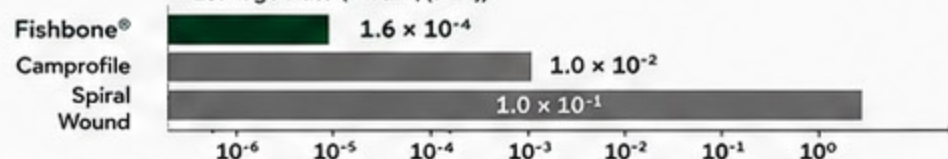
Crushing Pressure (MPa)



TA-LUFT Test

(VDI Guideline 2440 & VDI Guideline 2200)

Leakage Rate (mbar-l/(s·ml))



**ENGINEERED FOR RELIABILITY.
BUILT FOR PERFORMANCE.**

WIDE TEMPERATURE CAPABILITY

EXCELLENT SEALABILITY

CORROSION & EROSION PROTECTION

**SEMI-METALLIC****Spiral Wound Gaskets CGI****PRODUCT PROFILE**

APPLICATION: Suitable for flat face and raised face flanges up to Class 2500.

**Style CGI**

Similar to a CG gasket but fitted with inner ring giving additional compression limitation and providing a heat and corrosion barrier, protecting windings and preventing flange erosion.

MATERIALS AND MAXIMUM T LIMITS

MATERIAL	MINIMUM	MAXIMUM	ABBREVIATION	GUIDE RING COLOUR CODE PER ASME B16.20
Flexible Graphite	-212°C	510°C	F.G.	 Gray
PTFE	-240°C	260°C	PTFE	 White

TECHNICAL BENEFITS

-  Uses V-Shaped high quality stainless steel band. Provides reliable performance.
-  Uses high quality flexible graphite, which has excellent sealability.
-  Inner ring provides additional compression limitation and acts as a heat & corrosion barrier.
-  Protects windings and prevents flange erosion, extending gasket life.

DESIGN PARAMETERS

NOMINAL THICKNESS	COMPRESSED THICKNESS
3.2 mm	2.4 / 2.6 mm
4.5 mm	3.2 / 3.45 mm
7.3 mm	5.0 / 5.25 mm

TOLERANCE CAPABILITIES

STANDARD	GASKET DIAMETER	THE GASKET OUTSIDE DIAMETER	THE GASKET INSIDE DIAMETER	THE CENTERING RING OUTSIDE DIAMETER	THICKNESS
ASME B16.20-2012 For ASME B16.5 Flanges	NPS 1/2" through NPS 8"	±0.8 mm	±0.4 mm	±0.8 mm	±0.13 mm
	NPS 10 "through NPS 24"	+1.5 mm, -0.8 mm	±0.8 mm	±0.8 mm	

Inner-Ring Inside Diameter: For sizes NPS 1/2 "through NPS 3", the inside diameter tolerance is ±0.8 mm; for larger sizes the inside diameter tolerance is ±1.5 mm.

① Other Standard Tolerance please contact: sales@sizonktrading.co.za

STANDARDS

Environmental Gasket Company manufactures spiral wound gaskets in accordance with all relevant international gasket standards and non standard gaskets up to 4 meters in diameter to suit but not limited to the following flange designations:

ASME B16.20 ASME B16.47 SERIES B (API 605) ASME B16.47 SERIES A (MSS-SP 44)
BS 1560 BS 10 BSEN 1092 (BS 4504) DIN FLANGES JIS FLANGES FRENCH NF STANDARD

DESIGN FACTORS

m	3 (Liquid) 4.5 (Gas)	SEALABILITY	≤0.06 ml/min
y	700 kg/c m ²	THICKNESS	3.2 / 4.5 / 6.5 mm

ENGINEERED FOR RELIABILITY.
BUILT FOR PERFORMANCE.



WIDE TEMPERATURE
CAPABILITY



EXCELLENT
SEALABILITY



CORROSION &
EROSION
PROTECTION



REMARK: Our company inspected this product under experimental conditions. Yet when used in practice, this product cannot function independently, and has to work in coordination with the device. The performance of the product depends on other related factors (including factors not existent under the conditions of laboratory experiments). Users shall judge independently whether to use this product, and shall ensure correct storage, installation and application of this product. As such, our company assumes no responsibility with regard to any situation arising from inappropriate storage, installation and application. All products of our company were strictly examined under the relevant national or business standards.

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JMP 6000 WIRE

PREMIUM COMPRESSED
NON-ASBESTOS FIBRE SHEET



BASIS

Aramid Fibres, Glass Fibres,
Inorganic fillers with
wire reinforced.
(Binders: NBR)



GENERAL PROPERTIES & APPLICATIONS

Compressed Non-Asbestos Fibre (CNAF)
gasket sheet manufactured from aramid
fibres, glass fibres and inorganic fillers
with wire reinforcement, bonded with NBR.
Designed for steam, hot water, oils, fuels,
gases and general industrial sealing
applications.



DIMENSIONS OF STANDARD SHEETS

- Sheet Size: 1500 x 2000 mm
- Thickness: 1.0, 1.5, 2.0
and 3.0 mm
(other thicknesses
available on request)
- Tolerances:
Thickness: < 1mm = ± 0.1mm,
1mm = ± 10%
Length: ± 50mm
Width: ± 50mm

CONSIDERATIONS FOR GASKET MATERIAL SELECTION



SIZE

Thickness, thinner gaskets are
recommended. Gaskets larger
than sheets must be dovetailed.



TEMPERATURE

Peak and continuous. Refer to the
PxT chart for recommended
caution and technical advice values.



APPLICATION

Factors such as safety, accessibility
of joint and installation procedures
affect gasket selection.



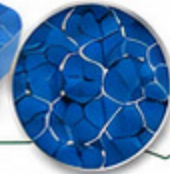
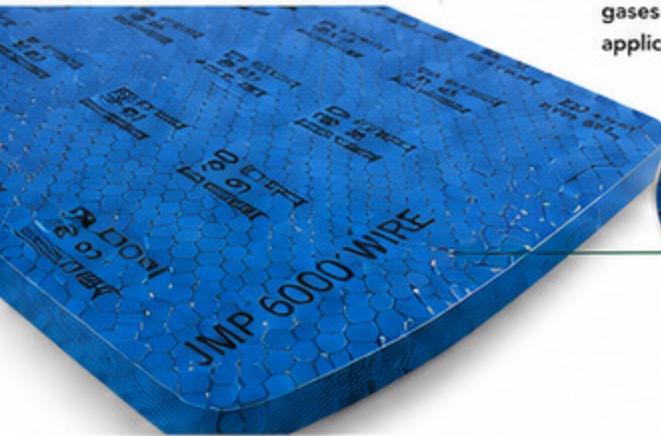
MEDIUM

Refer to the chemical reference
chart paying particular attention
to steam, oxidizing agents and
purging medium.



PRESSURE

Operation design and spikes.
NG offers technical assistance on
non standard flange bolting and
surface finish.



WIRE
REINFORCED

TYPICAL VALUES (Thickness 1.5mm)

PROPERTY	TEST METHOD	VALUE	UNIT
Density	ASTM F1315	1.70 – 2.10	g/cm ³
Tensile Strength	ASTM F152	8 Min.	N/mm ²
Compressibility	ASTM F36J	7 – 12	%
Recovery	ASTM F36J	50 Min.	%
Stress Relaxation (175°C)	BS 7531	30 Min.	N/mm ²
Gas Permeability	BS 7531	≤ 1.0	ml/min
Ignition Loss	ASTM F495	≤ 30.0	%

GUIDELINES FOR APPLICATION



AREA A

General suitability - Under
common installation practices
and chemical compatibility.



AREA B

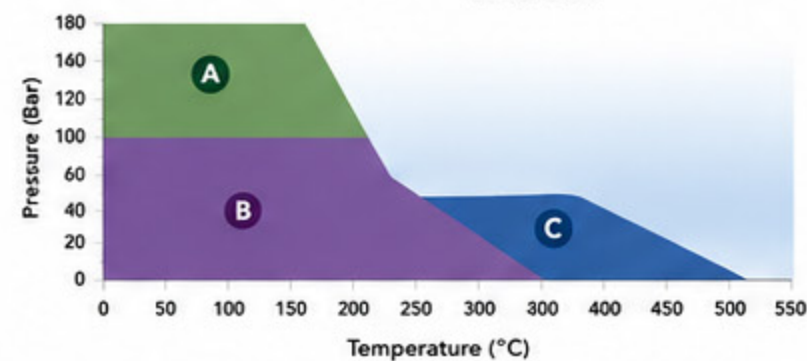
Conditional suitability -
Technical consultation
is recommended.



AREA C

Limited suitability -
Technical consultation
is mandatory.

PxT CHART (GUIDELINE)



The information represents typical values which can vary according to the application.
These values do not constitute a performance guarantee. Users should determine, prior to use,
the suitability of this material for their particular application.

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JMP ECONOMY

ECONOMICAL OIL RESISTANT
GASKET SHEET



BASIS

Aramid Fibres,
NBR

BS 7531
GRADE Y



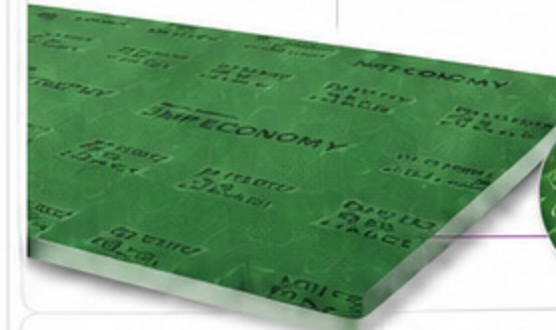
GENERAL PROPERTIES & APPLICATIONS

Oil resistant gasket material for medium
to high loadings. Economical quality
with good resistance to water, gases,
oils and fuels.



DIMENSIONS OF STANDARD SHEETS

- Sheet Size: 1500 x 1500 mm,
1500 x 2000 mm, 1500 x 4500 mm
- Thickness: 0.4, 0.8, 1.0, 1.5, 2.0
and 3.0 mm
(other thicknesses
available on request)
- Tolerances:
Thickness: < 1mm = ± 0.1mm,
1mm = ± 10%
Length: ± 50mm
Width: ± 50mm



ANTI-STICK
COATING



SURFACE TREATMENT

Treatment with
anti-stick coating
is standard.



MAXIMUM OPERATING CONDITIONS

Peak Temperature	250°C / 482°F
Continuous Temperature	200°C / 392°F
Temperature with Steam	160°C / 320°F
Pressure	50 bar / 725 psi

TYPICAL VALUES (Thickness 1.5mm)

PROPERTY	TEST METHOD	VALUE
Compressibility	ASTM F36J	9%
Recovery		>50%
Tensile Strength	DIN S2910	8 N/mm ²
Gas Leakage	DIN 3535/6	0.08 mg/(s.m)
Stress Resistance	DIN S2913	16h, 175°C, 50 N/mm ² 25 N/mm ² 30 N/mm ² 35 N/mm ²
Thickness Increase	ASTM F146	Oil IRM 903, Sh, 150°C ASTM Fuel B, Sh, 23°C 0.1 0.1
Maximum Operating Conditions	Peak Temperature	250°C / 482°F
	Continuous Temperature	200°C / 392°F
	Temperature with Steam	160°C / 320°F
	Pressure	50 bar / 725 psi

MAXIMUM P x T VALUE

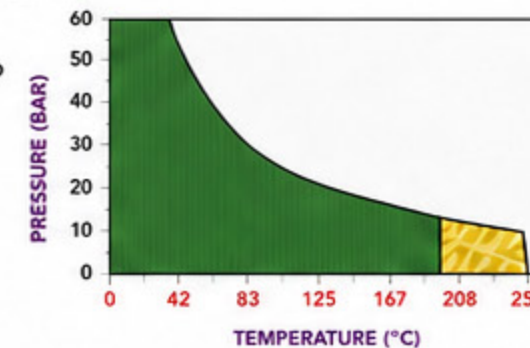


2,000
(Bar x °C)

At the limits of pressure
and temperature refer
to NG for technical
assistance.

PxT CHART (GUIDELINE)

- RECOMMENDED
- CAUTION
- TECHNICAL
ADVICE
REQUIRED



LEGEND



Recommended
Suitable for most
applications.



Caution
Use with caution.



Technical Advice
Required
Consult NG for
technical advice.



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These values do not constitute a performance guarantee. Users should determine, prior to use,
the suitability of this material for their particular application.

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MODIFIED PTFE

HIGH PERFORMANCE.
CHEMICALLY RELIABLE.

Engineered PTFE sheet materials for
demanding sealing applications in aggressive
chemical environments.

GASKET SHEETS

✓ EXCELLENT
SEALABILITY

◆ CHEMICAL
RESISTANCE

● WIDE TEMPERATURE
RANGE

+ EASY TO INSTALL
& REMOVE

SILICA FILLED PTFE SHEET

FAWN / PINK

SILICA FILLED PTFE SHEET



Manufactured from PTFE filled with
silica, offering high-performance
sealing and excellent resistance to
aggressive chemicals.

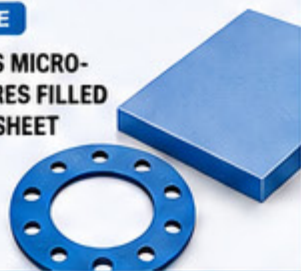
Suitable for strong acids (except
hydrofluoric acid), solvents,
hydrocarbons, chlorine and other
aggressive media.

Excellent sealing properties
Excellent chemical resistance
Suitable for FRP pipes

GLASS MICRO-SPHERES FILLED PTFE SHEET

BLUE

GLASS MICRO- SPHERES FILLED PTFE SHEET



Made using PTFE filled with
microsphere glass beads.
Compressible enough to fill voids and
seal imperfect flanges.

Designed for metallic raised-face
and most metallic flat-face flanges.
High fibrillation helps overcome
creep relaxation and cold flow.

Excellent sealing properties
Excellent chemical resistance
Suitable for FRP pipes

BARIUM SULPHATE FILLED PTFE SHEET

OFF-WHITE

BARIUM SULPHATE FILLED PTFE SHEET



Gasket sheet material containing
structured PTFE and barium
sulphate.

Excellent sealability and easy
installation and removal without
residue. Excellent alkali and
chemical resistance for caustic
soda and paper-industry
applications.

Excellent sealing properties
Excellent chemical resistance
Easy to install & remove

TECHNICAL DATA OF MODIFIED PTFE GASKET MATERIALS

PROPERTY	GLASS BEAD FILLED PTFE (BLUE)	GLASS FIBER FILLED PTFE (WHITE)	BARIUM SULPHATE FILLED PTFE (OFF-WHITE)	GRAPHITE FILLED PTFE (GREY)	MoS ₂ FILLED PTFE (GREY)	SILICA FILLED PTFE (FAWN/PINK)
TEMPERATURE MIN.	-268°C	-268°C	-268°C	-268°C	-268°C	-268°C
TEMPERATURE MAX.	+260°C	+260°C	+260°C	+260°C	+260°C	+260°C
PRESSURE BAR (MPa)	800 (55)	1200 (83)	1200 (83)	1200 (83)	1200 (83)	1200 (83)
TENSILE STRENGTH (PSI)	2000	2000	2000	2000	2400	2000
COMPRESSIBILITY (%)	25-45	70-85	4-10	80-95	70-85	7-12
CREEP RELAXATION (%)	40	10	11	12	15	18
RECOVERY (%)	>30	>8	>40	>40	>40	>40

SEALON

100% EXPANDED PTFE GASKET SHEET

SEALON Gasket Sheet is manufactured from 100% expanded PTFE
using a proprietary process that creates a uniform, highly fibrillated
microstructure with exceptional fiber orientation.

PREMIUM QUALITY

CHEMICALLY INERT

HIGHLY COMPRESSIBLE

UNMATCHED RELIABILITY

OVERVIEW

SEALON Gasket Sheet delivers superior sealing performance across
a wide range of industrial flange and fluid applications. Its advanced
microstructure offers outstanding resistance to creep, cold flow, and
chemical attack—ensuring long-term reliability even under the most
demanding conditions.

KEY FEATURES

- 100% PURE PTFE**
Virgin PTFE for maximum purity and performance.
- EXCELLENT SEALABILITY**
Conforms to flange imperfections for a tight, leak-free seal.
- HIGH FLEXIBILITY**
Easily adapts to uneven and damaged flanges.
- UNIFORM, HIGHLY FIBRILLATED MICROSTRUCTURE**
Multidirectional fibers deliver consistent performance.
- RESISTS CREEP & COLD FLOW**
Maintains seal integrity under pressure and over time.
- LOW CREEP & RE-TORQUING**
Requires less maintenance and retightening.
- CHEMICALLY INERT (pH 0-14)**
Unaffected by virtually all common chemicals.
- NON-CONTAMINATING & NON-TOXIC**
Safe for sensitive and critical applications.
- WIDE TEMPERATURE RANGE**
-450°F to +500°F continuous
Short-term up to +600°F
- LOW COMPRESSIVE LOAD**
Seals effectively with minimal bolt load.
- SEALS ROUGH OR DAMAGED FLANGES**
Ideal for less-than-perfect sealing surfaces.

REMARKS

- Compatible fluids: Corrosive fluids, acids, alkalis, solvents, water,
liquid and oils.
- Non-compatible fluids: Molten alkali metals, fluorine at liquid and
gas states.

AVAILABLE SIZES

SIZE	THICKNESS FOR SOFT							
Metric size: 1500mm x 1500mm English size: 60" x 60"	0.5 mm	1.0 mm	1.5 mm (=1/16")	2.0 mm	3.0 mm (=1/8")	4.0 mm	5.0 mm	6.0 mm (=1/4")
Metric size: 2000mm x 2000mm English size: 80" x 80"	1.5 mm (=1/16")	2.0 mm	3.0 mm (=1/8")	—	—	—	—	—

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	VALUE	UNIT
Sealability Leakage @ 60 psig / 4 bar Nitrogen Gas	ASTM F-37-B	0.16	ml/hr
Compressibility	ASTM F-36	66	%
Creep Relaxation	ASTM F-38	38	%
Recovery	ASTM F-36	16	%

* Test results in accordance with ASTM are based on 0.8mm (1/32") sheet thickness.

APPLICATIONS

SEALON Gasket Sheet is suitable for a virtually unlimited range of sealing
applications across a wide spectrum of industries:

- Chemical Manufacturing
- Pharmaceutical Plants
- Petrochemical Production
- Steel Manufacturing
- Distilling
- Food & Beverage Processing
- Pulp & Paper Processing
- Power Generation
- Marine
- Food Equipment Manufacturing
- General Industrial

Improving Reliability.
Delivering Quality.
Developing Consistency.
Creating Perfection.



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Quality Engineering Solutions & Supplies

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