Administration Headquarters

50,000m² Manufacturing Plant and Logistics Center

AIGI ENVIRONMENTAL INCORPORATED

A Subsidiary of AIGI Industrial Group

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G023-2023E3V1.0E

GASKET CATALOGUE

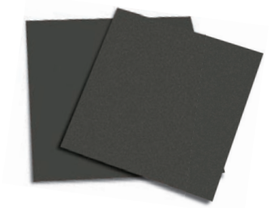
CONTENTS

• *Non Metallic Gasket Sheets*

Compressed Fiber Gasket Sheets

PTFE & Reinforced PTFE Gasket Sheets

Graphite & Reinforced Graphite Gasket Sheets



Tape Gaskets

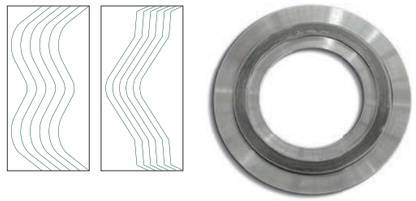
• *Metal & Semi Metallic Gaskets*

Fishbone® Gaskets

Ring Joint Gaskets

Licensed Under API Spec. 6A-1069

& SU Patented & Improved Spiral Wound Gaskets



Kammprofile Gaskets

Non Metallic Gasket Sheets

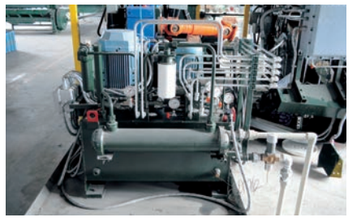
Compressed Fiber Gasket Sheets

PTFE Gasket Sheets

Graphite Gasket Sheets

Tape Gaskets

Fully Automatic Compressed Fiber Sheet Manufacturing Line



Hydraulic Control for High Pressure

High Precision Calender

Digital Control Panel

Compressed Fiber Gasket Sheets

• ***AIGI 300IM*** *Aramid Fiber Sheets*

AIGI 300IM is produced using an advanced thermal rolling technology, consisting of aramid fibers and special binders, which makes for a high quality universal material in general gasket applications.

• ***AIGI 350IM*** *Steamed Aramid Fiber Sheets*

AIGI 350IM consists of special steamed aramid fibers and stretch binders. They make excellent gaskets, especially in steam applications.

Technical Data

Description		AIGI 300IM	AIGI 350IM
Density		1.6-1.9g/cm³	1.6-1.9g/cm³
Peak Temp.		400°C	430°C
Max. Continuous Temp.		150°C	200°C
Max. Pressure		100bar	100bar
Continuous Pressure		50bar	55bar
Compressibility	ASTM F-36	8-17%	8-17%
Recovery	ASTM F-36	⩾36%	⩾36%
Tensile Strength	ASTM F-152	⩾7MPa	⩾7MPa
Sealability	ASTM F-37	0.06ml/min	0.06ml/min

Media

mostly designed for oil, lubricant & water

Standard Sizes

Thickness		Sheet Size L×W
1/32″	0.8mm	1.5m × 1.5m 2.0m × 1.5m 3.0m × 1.5m 3.0m × 2.0m
-	1.0mm	
1/16″	1.6mm	
-	2.0mm	
1/8″	3.2mm	
-	4.0mm	

PTFE Gasket Sheets

Polytetrafluoroethylene PTFE, a fluoropolymer with exceptional chemical resistance and is the most widely used plastic in the sealing industry. The only known chemical products to attack PTFE are liquid alkaline metals and free fluorine. It has a fairly good temperature range from cryogenic to plus 260°C, excellent electrical insulation properties, anti-stick, impact resistance and low coefficient of friction.

PTFE gasket sheeting products are manufactured by mixing pure PTFE powder with other fillers then sintering or extruding the gasket product. Virgin or pure PTFE sheets with no fillers are rarely used for gasket sheet materials as they tend to creep or cold flow under pressure. Creep which is defined as a loss of tightness, measurable by torque loss when the gasket is compressed, causes the gasket to change shape and cold flow resulting in a loss of bolt load, a loss of gasket compression and eventually a leak.

Because of this problem with pure PTFE gasket material, it is generally accepted that a filled PTFE gasket material will have superior performance. Glass is the most common filler used in PTFE sealing materials with others being carbon, graphite, bronze, etc. These fillers give the PTFE extra structural strength and creep resistance.

AIGI Environmental Inc. has a number of reinforced or filled PTFE gasket sheeting products that are suitable for various applications and can be provided in sheet or cut gasket formats.

Features & Benefits

- Chemical resistant PH 0 ~ 14
- Temperature range -240°C to 260°C
- High residual stress
- Environmentally friendly
- Non aging & UV resistant
- Non flammable & Vacuum resistant

Please consult with your AIGI Environmental Inc. representative for full details on our PTFE gasket styles, materials, sizes and specifications.

PTFE & Reinforced PTFE Gasket Sheets

• *AIGI 36*

Virgin PTFE Sheets

Features & Benefits

- Excellent corrosion resistance
- Widely used in most applications
- Ideal choice for replacing asbestos material

Technical Data

Description		Results
Density	GB 1033-86	2.2g/cm³ ± 0.1
Compressibility	GB/T 12622-90	⩾15%
Recovery	GB/T 12622-90	⩾30%
Tensile Strength	ASTM F152	⩾15MPa
Temp. Range		-200~260°C
Pressure		1.6MPa

Standard Sizes

Thickness		Sheet Size L×W
1/16″	1.0mm	1.0m × 1.0m 1.5m × 1.5m
-	1.5mm	
-	2.0mm	
-	2.5mm	
1/8″	3.0mm	
-	4.0mm	
-	4.5mm	
-	5.0mm	
-	6.0mm	

• *AIGI 126*

Glass Fiber Reinforced PTFE Sheets

Features & Benefits

- Avoids creep relaxation and emission
- Improved chemical resistance
- Improved hardness
- Excellent deformation resistance

Technical Data

Description		Results
Density		2.1~2.3g/cm³
Compressibility	ASTM F36-99	9~15%
Recovery	ASTM F36-99	⩾35%
Tensile Strength		⩾18MPa
Temp. Range		-200~260°C
Max. Continuous Pressure		4.0MPa
Stress Relaxation Rate	ASTM F38-00	⩽70%
Elongation at Break	ASTM D1780-06	⩾210%

Standard Sizes

Thickness		Sheet Size L×W
1/16″	1.5mm	1.0m × 1.0m
-	2.0mm	
1/8″	3.0mm	
1/16″	1.5mm	1.5m × 1.5m
-	2.0mm	
1/8″	3.0mm	
-	4.0mm	
-	5.0mm	

Rubber Gasket Sheets

• *AIGI 141* NBR Sheets

AIGI 141, Nitrile Rubber has outstanding heat resistance which makes it can be used under 120°C atmosphere for a long time. Meanwhile AIGI 141 has a high gas-tightness ability too. While NBR is not suitable under low temperature and its gets a low dielectric properties.
AIGI 141 NBR sheets are used under Alpha Olefin Lube; Ethylene glycol; hydrocarbon fuel; Silicon oil; Grease; water; water-based engine cooling liquid; etc..

• *AIGI 142* FR Sheets

AIGI 142, Fluorubber could work under high temperature, oxidize and most of liquid, also with an excellent physical-mechanical properties; which makes AIGI 142 be used in a wide range of industrial applications, like alcohols lube; petroleum liquid; Sulphosuccinic acid ester liquid; etc..

• *AIGI 144* Neoprene Sheets

AIGI 144 Neoprene sheet has outstanding weatherability, excellent resistance to oil and ozone; and excellent adhesiveness which makes it one of the best gasket materials in the sealing industry.
AIGI 144 could be widely used in silicon oil; grease; low temp. water and water-soluble; refrigerants; ammonia water; CO_2; ozone; etc..

• *AIGI 146* EPDM Sheets

AIGI 146 EPDM could withstand low temperature, and has good resistance to light aging and alkali. It has excellent electrical insulation ability.
AIGI 146 could be used in alcohol; dilute acid; brake fluid; hot/cold water; ketone; ozone; silicon resin liquid or steam under 200°C.

• *AIGI 147* Silicon Rubber Sheets

AIGI 147 Silicon Rubber Sheets could stand for high and low temperature, stable physical properties at a wide temperature range: -60°C~250°C. It also offers ozone resistant and weatherability.
It is used under air; Ethylene glycol; ozone; UV rays; etc..

Technical Data

Properties \ Product	AIGI 141	AIGI 142	AIGI 144	AIGI 146	AIGI 147
Density	1.5g/cm³	2.0g/cm³	1.5g/cm³	1.4g/cm³	1.25g/cm³
Hardness	65±5(Shore A)	70±5(Shore A)	65±5(Shore A)	65±5(Shore A)	50±5(Shore A)
Tensile Strength	3.5MPa	8MPa	3.5MPa	5MPa	5.5MPa
Elongation at break	280%	250%	280%	250%	300%
Working Temp.	-50~120°C	-20~200°C	-40~120°C	-50~150°C	-55~230°C
Pressure	1.7MPa	4MPa	1.7MPa	2MPa	2MPa

Standard Sizes

Thickness	Sheet Size L x W
1.0mm , 1.5mm , 2mm , 2.5mm 3mm , 4mm , 5mm , 6mm	1.0m × 1.0m , 1.5m × 1.5m

Graphite Gasket Sheets

• *AIGI 38*

Graphite sheet is made from naturally occurring graphite flakes, after processing the graphite from its mined ore state to purify and expand it, the flakes are calendared into pure graphite sheets with no binders or fillers. With the lack of binders and fillers there is no significant volume loss in gaskets being used at high temperatures and the gaskets will not harden like compressed fibre gaskets containing elastomer binders.

Graphite's outstanding thermal stability, excellent compressibility and a superior chemical resistance makes it one of the best gasket materials in the sealing industry today, with the only down side being graphite's less handleability. Due to graphite sheet being a lot more fragile than other gasket materials they must be handled and installed with care.

Technical Data

Description		Results
Stress Relaxation Rate	ASTM F-38	＜5%
Compressibility	ASTM F-36	40%
Recovery	ASTM F-36	⩾9%
Sealability	ASTM F-37	0.06ml/min
Tensile Strength	ASTM F-152	＞4MPa
Maximum Temp	Non oxidizing	1600°F (870°C)
	Oxidizing	850°F (450°C)
Maximum Pressure		2000 psi (140 bar)

Standard Sizes

Thickness		Sheet Size L x W
-	1.0mm	1.0m × 1.0m 1.5m × 1.5m
1/16″	1.6mm	
-	2.0mm	
1/8″	3.2mm	
-	4.0mm	

※ Please consult with AIGI Environmental Inc. for other non-standard size and specifications.

Features & Benefits

- Low permeability to gases and liquids
- Flexible, soft texture
- Resistant to most mediums
- Asbestos free & No health hazard
- Environmentally compatible
- Suitable to use at temperature ranges from 250°C to 3000°C
- No binders, will not age or harden
- Has long term compressibility and recovery stability
- No cold or warm flow
- Excellent resistance to thermal shock
- Easy to cut and punch

Reinforced Graphite Sheets

• *AIGI 39*

To improve the performance of graphite sheet for handling during cutting and installation metal foil inserts of various types are added. Environmental Gasket Company has a number of reinforcement materials available from perforated or tanged stainless steel to flat pure nickel foil.

Perforated or Tanged Stainless Steel Insert
Graphite sheet impregnated with perforated stainless steel foil

Flat Stainless Steel Insert
Graphite sheet impregnated with flat stainless steel foil

Flat Nickel Insert
Graphite sheet impregnated with flat nickel foil

Item	Reinforced Graphite Sheet Styles					
	39A	39B	39C	39D	39E	39H
Reinforcement Style	Tanged			Flat		Flat
Reinforcement Material	Carbon Steel	304 SS	316L SS	304 SS	316L SS	Nickel

Standard Sizes

Item	Gasket Thickness		Sheet Size L×W
AIGI 39A	1/16″	1.6mm	1.0m × 1.0m 1.5m × 1.5m
AIGI 39B	-	2.0mm	
AIGI 39C	1/8″	3.2mm	
AIGI 39D	-	4.0mm	
AIGI 39E	-	5.0mm	
AIGI 39H*			

※ Only L × W = 1.0m × 1.0m is available.
Please consult with AIGI Environmental Inc. for other non-standard size and specifications.

Graphite and Reinforced Graphite is available in both sheet format and pre cut to suit all standard Chinese and international flange standards and non standard sizes or alternatively cut to drawing for the application it is to be used for.

Cut Gaskets

Fully Automatic Gasket Cutting Machine

AIGI Environmental Inc. , utilizing state-of-the-art numerically controlled gasket cutting equipment, cut gaskets to all Chinese and international flange standards as well as non standard gaskets. Gaskets can be cut from a large variety of gasket sheet and non metal materials.

Tape Gaskets

• AIGI 135

Features & Benefits

- Graphite tape with glue on the rear
- Nickel reinforced graphite
- Excellent sealing performance
- Wide range tempreature & outstanding chemical compatibility

Technical Parameters

Description		Results
PH		0 ~ 14
Maximum Temp	Non oxidizing	650°C
	Oxidizing	450°C
Maximum Pressure		12MPa

Application

Concentrated sulfuric acid , Concentrated nitric acid , Chloroazotic acid , and all medium.

Standard Sizes

W×H×L (mm × mm × m)		
3 × 3 × 60	6 × 3 × 50	
14 × 3 × 30	19 × 3 × 20	
25 × 5 × 15	38 × 5 × 10	

• AIGI ePTFE

Features & Benefits

- Strong intensity & excellent creep resistance
- Flexible material achieves excellent sealing performance
- Applied in low temp.
- Forms wide range shapes & economical
- Self-adhesion & easy installation

Technical Parameters

Description	Results
Temp. Range	-268 ~ 260 °C
PH	0 ~ 14
Maximum Pressure	Vacuum ~ 21MPa

Conforms to FDA 21CFR 177.1550

Application

All medium except molten alkali metal, high tempreature fluorine, partial arenes compound.

Applied in all types flanges, manhole, joints, pipeline and other devices.

Standard Sizes

W x H x L (mm × mm × m)		
1 × 1 × 30	12 × 5 × 5	25 × 10 × 23
3 × 1.5 × 30	16 × 6 × 4.5	30 × 5 × 5
5 × 2 × 23	19 × 7 × 4.5	50 × 5 × 12
6 × 2.5 × 15	20 × 7 × 30	
9 × 3 × 7.5	25 × 10 × 4.5	

Chemical Compatibility

Chemical	AIGI 38	AIGI 39	AIGI 300	AIGI 350	AIGI 126
Acetic acid(10%)	A	A	A	A	A
Acetic acid(100%)	A	A	B	B	A
Acetic aldehyde	A	A	B	B	A
Acetone	A	A	A	A	A
Acetylene	A	A	A	A	A
Acidum benzoicum	A	A	B	B	A
Air	A	A	A	A	A
Aircraft fuel	A	A	B	B	A
Aluminium acetate	A	A	A	A	A
Aluminium chloride	A	A	A	A	A
Aluminium oxide	A	A	A	A	A
Ammonia	A	A	B	B	A
Ammonia carbonate	A	A	A	A	A
Ammonium hydroxide	A	A	A	A	A
Amyl acetic	A	A	B	B	A
Aniline	A	A	B	B	A
Benzene	A	A	C	C	A
Benzenedicarboxylic acid	A	A	A	-	A
Benzyl ether	A	A	C	C	A
BFG(blast furnace gas)	A	A	A	A	A
Bitumen	A	A	A	A	A
Bleach solutions	A	A	A	A	A
Boiler feed water	A	A	A	A	A
Boracic acid	A	A	A	A	A
Borax	A	A	A	A	A
Brine	A	A	A	A	A
Bunker fuel	A	A	A	A	A
Butane	A	A	C	C	A
Butanoic acid	A	A	A	A	A
Butanol	A	A	A	A	A
Calcium chloride	A	A	A	A	A
Calcium hydroxide	A	A	A	A	A
Calcium hypochlorite	A	A	A	A	A
Calcium sulfate	A	A	A	A	A
Carbon dioxide	A	A	A	A	A
Carbon disulphide	A	A	C	C	A
Castor seed oil	A	A	A	A	A
Chlorinated biphenyl	A	A	C	C	A
Chlorine	A	A	C	C	A
Chloroacetic acid	A	A	C	C	A
Chloroethane	A	A	C	C	A
Chromic acid	A	A	C	C	A

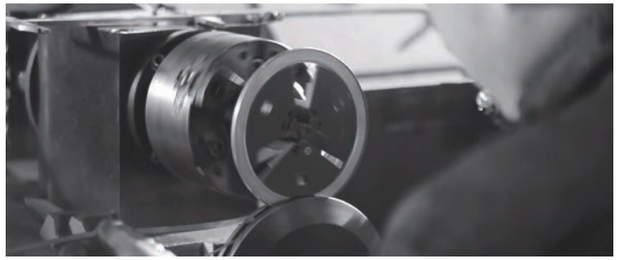
Chemical	AIGI 38	AIGI 39	AIGI 300	AIGI 350	AIGI 126
Copper acetate	A	A	A	A	A
Copper sulfate	A	A	A	A	A
Creosote	A	A	B	B	A
Crude oil	A	A	A	A	A
Cyclohexanone	A	A	B	B	A
Cyclohexylamine	A	A	C	C	A
Diesel oil	A	A	A	A	A
Dimethylformamide	A	A	C	C	A
Ethane	A	A	A	A	A
Ethanolamines	A	A	A	A	A
Ether	A	A	B	B	A
Ethyl acetate	A	A	B	B	A
Ethyl alcohol(ethanol)	A	A	A	A	A
Ethylene	A	A	A	A	A
Ethylene glycol	A	A	B	B	A
Ethylene glycol hydraulic fluid	A	A	A	A	A
Fatty acid	A	A	A	A	A
Formaldehyde	A	A	A	A	A
Formamide	A	A	B	B	A
Formic acid(10%)	A	A	A	A	A
Formic acid(85%)	A	A	B	B	A
Frenon 12	A	A	A	C	A
Frenon 22	A	A	A	C	A
Glycerin	A	A	A	A	A
Heptane	A	A	C	C	A
Hydraulic oil	A	A	A	A	A
Hydrobromic acid	A	A	A	A	B
Hydrochloric acid 10%	A	A	C	C	A
Hydrochloric acid 20%	A	A	C	C	A
Hydrochloric acid 37%	A	A	C	C	A
Hydrochloric acid 40%	A	A	C	C	A
Hydrogen chloride	A	A	A	A	B
Hydrogen peroxide	A	A	A	A	B
Isooctane	A	A	A	A	A
Isopropyl alcohol	A	A	A	A	A
Kerosene	A	A	B	B	A
Lactic acid 50%	A	A	A	A	A
Lime water	A	A	A	A	A
Magnesium sulfate	A	A	A	A	A
Maleic acid	A	A	A	A	A
Methane	A	A	A	A	A
Methyl alcohol(methanol)	A	A	A	A	A

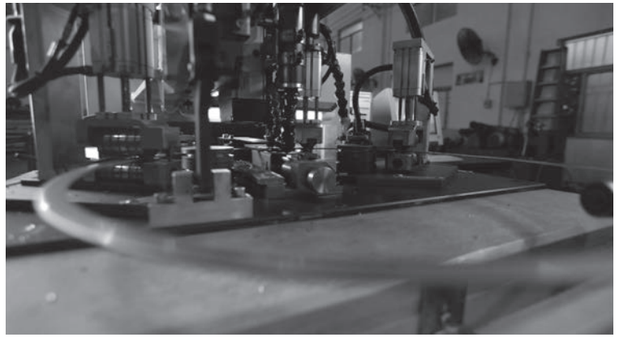
Chemical	AIGI 38	AIGI 39	AIGI 300	AIGI 350	AIGI 126
Methyl chloride	A	A	C	A	A
Methyl ethyl ketone	A	A	C	C	A
Methylphenol	A	A	B	B	A
Mineral oils 1#	A	A	B	B	A
Mineral oils 3#	A	A	B	B	A
Naphtha	A	A	C	C	A
Natrium sulfurosum	A	A	A	A	A
Nitric acid 20%	A	A	C	A	A
Nitric acid 40%	A	A	C	C	A
Nitric acid 96%	C	C	C	C	A
Nitrobenzene	A	A	C	C	A
Octylene	A	A	C	C	A
Oleinic acid	A	A	A	A	A
Oleum	A	A	C	C	A
Organic phosphate	A	A	B	B	A
Oxalic acid	A	A	C	C	A
Oxygen	A	A	B	B	A
Palmitnic acid	A	A	A	A	A
Paraffin wax	A	A	C	C	A
Pentane	A	A	C	C	A
Phenol carbonate	A	A	B	B	A
Phenols	A	A	B	A	A
Phosphoric acid	A	A	B	A	A
Postassim nitrate	A	A	A	A	A
Potassium acetate	A	A	A	A	A
Potassium chloride	A	A	C	C	A
Potassium chromate	A	A	A	A	A
Potassium hydroxide	A	A	B	B	B
Potassium hypermanganate	B	B	A	A	A
Potassium methyl carbonate	A	A	A	A	A
Propane	A	A	B	A	A
PTFE	A	A	C	A	A
Pyridine	A	A	B	-	A

Chemical	AIGI 38	AIGI 39	AIGI 300	AIGI 350	AIGI 126
Sea water	A	A	A	A	A
Sillicon oil	A	A	A	A	A
Soap lye	A	A	A	A	A
Sodium aluminate	A	A	A	A	A
Sodium carbonate	A	A	A	A	A
Sodium chloride	A	A	A	A	A
Sodium cyanide	A	A	A	-	A
Sodium hydroxide	A	A	B	A	A
Sodium sillicate	A	A	A	-	A
Sodium sulfide	A	A	A	A	A
Starch	A	A	A	A	A
Steam	A	A	A	A	A
Steam condensate	A	A	A	A	A
Sulfuric acid 20%	A	A	C	A	A
Sulfuric acid 50%	A	A	C	A	A
Sulfurous acid	A	A	B	A	A
Sulphur dioxide	A	A	B	A	A
Tannic acid	A	A	A	-	A
Tartaric acid	A	A	A	-	A
Toluene(toluol)	A	A	C	A	A
Transformer oil	A	A	B	A	A
Trichloroethane	A	A	C	A	A
Trichloromethane	A	A	C	C	A
Turpentine	A	A	C	A	A
Urea	A	A	A	-	A
Vanadium	A	A	A	A	A
Vinyl chloride	A	A	C	C	A
Water	A	A	A	A	A
White spirit	A	A	C	A	A
Xylene	A	A	C	A	A

A = Suitable, B = Dependent on Operating Conditions, C = Unsuitable, - = No Data or Insufficient Evidence

Metal & Semi Metallic Gaskets





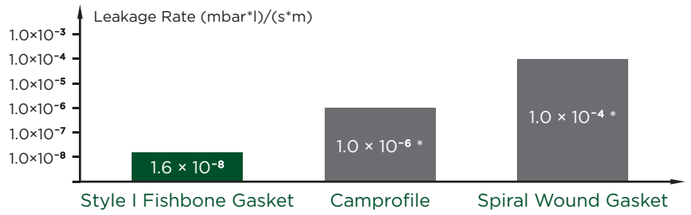
Fishbone® Gaskets

Internationally **Patented**

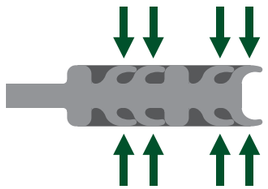
Replace ***ALL***
Spiral Wound Gaskets & Camprofile Gaskets !

- ***1,000,000*** *times lower leakage than TA-LUFT Test limit*
- ***25*** *times lower leakage than CFET Test limit*
- ***Pass*** *API 6FB Fire Test*

TA-LUFT Test – VDI Guideline 2440 & VDI Guideline 2200



※ Average values from accredited international laboratory



Heat Exchanger is available!

and more

The Fishbone® Gasket Design & Advantages

Design

- Helical concentric bevelled ribs, each side covered with Graphite, PTFE or Mica
- Unitary design with or without a centering ring
- Rounded, non-sharp contact surface
- Unique Stop-Step design

Advantages

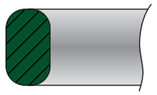
- Internally self-energized and by fluid pressure for better sealing performence
- Interchangeable with all spiral wound gaskets and Camprofile gaskets
- Will not damage flange like Camprofile gaskets and spiral wound gaskets
- Prevents over-compression of sealing element

Ring Joint Gaskets

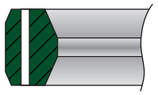
• *AIGI 30*

A solid metal gasket that is softer than the mating flange material that is virtually 'crushed' into the flange face, creating a seal by filling imperfections and leak paths with gasket material. Under high sealing stress the gasket deforms but not the flange. They are used predominantly in the petrochemical industry (offshore oil platforms, refineries) due to the high service pressures required in their processes. Ring joint gaskets are machined to exact specifications and tight tolerances and come in a number of styles.

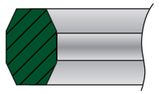
Series R
Oval



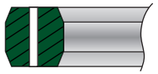
Series RX



Series R
Octagonal



Series BX



Ring Joint Gasket Styles

R Oval or octagonal
RX Self-energizing gasket
BX Used in API spec 6A flanges

Materials

Common materials used for the manufacture of ring joint gaskets:

- Soft Iron
- Low Carbon Steel
- Stainless Steel
- Monel®
- Inconel®
- Incoloy®
- Hastelloy®

Hardness of Materials

On compression of the flange assembly, it is imperative that the ring joint gasket be significantly softer than the flange groove so that the gasket plastically deforms and not the groove. The use of harder ring joint gaskets can result in flange groove damage.

For this reason, ring joint gaskets are supplied with the following maximum hardness values:

Material	HB Max.	HRB Max.
Soft Iron	90	56
Low Carbon Steel	120	68
5Cr1/2Mo	130	72
304 SS	160	83
316 SS	160	83
347 SS	160	83
321 SS	160	83

Ordering Information

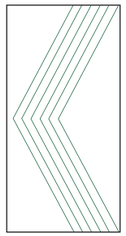
When ordering ring joint gaskets please specify the following:

- Gasket style and number
- Material
- Nominal pipe size and pressure rating or specific gasket dimensions if other than standard

Licensed Under
API Spec. 6A-1069

Spiral Wound Gaskets

V-Shaped



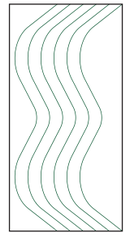
• *AIGI 35V*

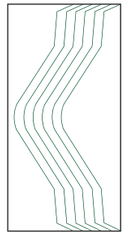
Traditional V Type Spiral Wound Gaskets

- Uses V-Shaped high quality stainless steel band. Provides reliable performance.
- Uses high quality flexible graphite, which has excellent sealability.
- Diameter up to 4m.

• *AIGI 35S & 35SU*

Shaped SU-Shaped





& SU Patented & Improved Spiral Wound Gaskets

- The unique SU-Shaped steel band structure helps provide better recovery ability.
- The angle between the steel band and the flange surface is less than 30°, which prevents damage to the flange surface.
- Flexible Graphite sealing material: High strength, superior sealability, excellent chemical resistance.

PATENTED

Gasket Material

- Metal Wound Band: 304SS / 316LSS
- Filler Material: Flexible Graphite / PTFE

※ Other materials available upon request.

Technical Data

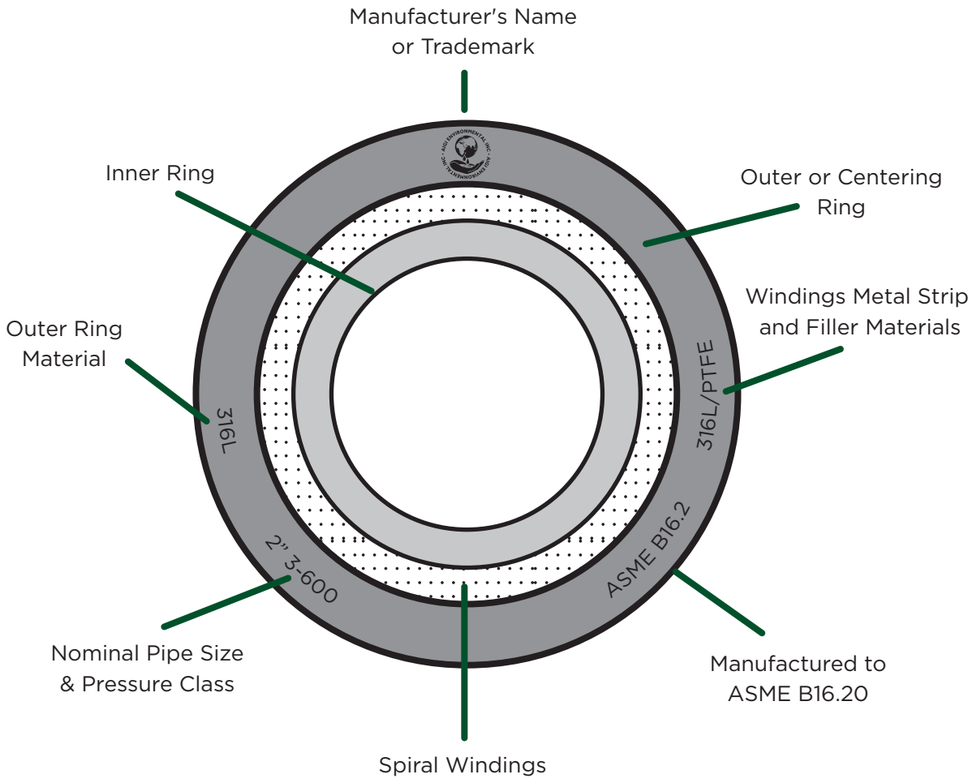
Description		AIGI 35V	AIGI 35S & 35SU
Sealability		⩽ 1×10^{-3} cm³/s	⩽1×10^{-4} cm³/s
Max. Pressure		20MPa	30MPa
Temperature Range	Metal + Flexible Graphite	-250 ~ 870°C	-250 ~ 870°C
	Metal + PTFE	-200 ~ 260°C	-200 ~ 260°C
Thickness		3.2/4.5/6.5mm	4.5/6.5mm

Reinforced Style

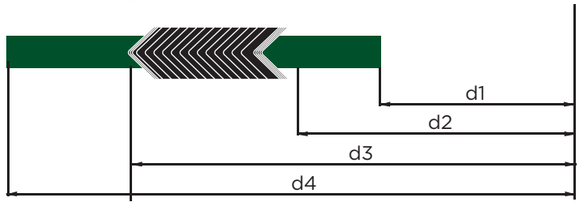
Spiral Wound Only(Style R)	Suitable for tongue and groove, male-female, or groove-to-flat face flanges
Spiral Wound with Inner Ring(Style RIR)	Suitable for male-female face flanges
Spiral Wound with Outer Ring(Style CG)	Suitable for flat face and raised face flanges up to Class 2500 (42MPa)
Spiral Wound with Inner and Outer Ring(Style CGI)	

• *Spiral Wound Gasket Identification*

Identification as Required by ASME B16.20

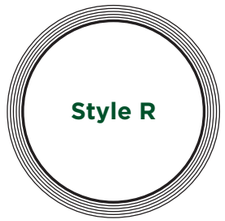


• *Gasket Dimensions*



d1 - Inside Diameter of Inner Ring
d2 - Inside Diameter of Sealing Element
d3 - Outside Diameter of Sealing Element
d4 - Outside Diameter of Outer Ring

• *Spiral Wound Gasket Types*



Basic construction type, inner and outer diameters are reinforced with several plies of metal without filler to give greater stability and better compression and sealing characteristics.

Style RIR fitted with a solid inner metal ring acting as a compression stop, fills the space between flange bore and ID of the gasket. Prevents accumulation of solids, reduces turbulent flow and minimizes erosion at flange faces.

Style CG fitted with an external ring which accurately centers gasket on the flange face, provides additional radial strength preventing gasket blow-out and acts as a compression stop.

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

Ordering Information

When ordering spiral wound gaskets please specify the following:

- Gasket standard
- Gasket style
- Nominal pipe size and pressure rating or specific gasket dimensions if other than standard
- Winding and filler materials
- Outer or centering ring and/or inner ring material
- Thickness of gasket if other than standard

International Standard

ISO , ASME B16.20 , API601 , JIS B2404 , JPI - 7S - 41 , DIN2699 , BS3381

※ Please consult with AIGI Environmental Inc. for all your standard and non standard gasket requirements.

• *Spiral Wound Gasket Specifications*

Temperature Range of Common Metals

Material	Minimum	Maximum	Abbreviation	Guide Ring Colour Code per ASME B16.20
304 SS	- 195°C	760°C	304	Yellow
304L SS	- 195°C	760°C	304L	No Colour
316L SS	- 100°C	760°C	316L	Green
317L SS	- 100°C	760°C	317L	Maroon
321 SS	- 195°C	760°C	321	Turquoise
Carbon Steel	- 40°C	540°C	CRS	Silver
INCOLOY® 800	- 100°C	870°C	IN 800	White
INCOLOY® 825	- 100°C	870°C	IN 825	White
INCONEL® 600	- 100°C	1,090°C	INC 600	Gold
INCONEL® 625	- 100°C	1,090°C	INC 625	Gold
INCONEL® X750	- 100°C	1,090°C	INX	No Colour
MONEL® 400	- 130°C	820°C	MON	Orange
Nickel 200	- 195°C	760°C	NI	Red
Titanium	- 195°C	2,000°C	TI	Purple

Temperature Range of Spiral Windings

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

Thickness

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

Standard Tolerances for Windings

Gasket Diameter	ID	OD
≤ 25 mm	+0.4 mm, -0	+0, - 0.8 mm
25 - 610 mm	+0.8 mm, -0	+0, - 0.8 mm
610 - 915 mm	+ 1.2 mm, -0	+0, - 1.6 mm
915 - 1525 mm	+ 1.6 mm, -0	+0, - 1.6 mm
≥ 1525 mm	+2.4 mm, -0	+0, - 2.4 mm

Kammprofile Gaskets

AIGI Environmental Inc.'s kammprofile gaskets are semi metallic gaskets that can be used for most applications from low to very high pressure. The gaskets consist of a metal core with corrugated grooves and a soft layer of sealing material bonded to either face. The corrugated metal core is a very effective seal in applications where high temperatures, high pressures and fluctuating conditions exist, especially at high seating loads. The sealing layers protect the flange faces from damage and have excellent sealing properties when supported by the corrugated metal core.

The kammprofile gasket was developed as an alternative to both traditional metal jacketed and spiral wound gaskets.

• *Serrated Compound Gaskets or Camprofile / Kammprofile*

Types & Configurations:

AIGI 33A

Basic Type

For confined locations, including male and female, tongue and groove, and recessed flange arrangements

AIGI 33B

Integral Centering Ring Type

Ensures optimum gasket positioning, suitable for raised and flat flange arrangements

AIGI 33N

Metal Type

Achieves excellent sealing performance through relatively low bolt load with outstanding thermal conductivity & strong hardness. For high temp. & pressure and corrosive application.

Temp.: up to materials **Pressure:** Vacuum ~ 42 MPa

• *Kammprofile Compound Gaskets*

Kammprofile compound gaskets consist of a special wave-serrated elastic frame metallic core and with a soft gasket material bonded to each face. The wave-serrated section shape has better compressibility and resilience. The wave corrugated compound gaskets can adapt to extreme fluctuations in temperatures and pressures.

Types & Configurations:

AIGI 34A

Base Type

For confined locations, including male and female, tongue and groove, and recessed flange arrangements

AIGI 34B

Integral Centering Ring Type

Ensures optimum gasket positioning, suit for raised and flat flange arrangements

Temp.: up to materials **Pressure:** Vacuum ~ 42 MPa

Materials: Metal Core

304 SS 304L SS 316 SS 316L SS 321 SS Carbon Steel

Seal Face Material

Expanded Graphite PTFE