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CATALOG

KLINGRIT - CORK - RUBBER - CERAMIC SHEET - PTFE GASKET AND
GASKET VARIETIES WHOLESALE MANUFACTURING - EXPORT

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ABOUT US

PREFACE

We are presenting our long-standing sectoral expertise, renewed structure, and understanding to you, our valued users.

Many technical informations on our catalog and website are being published for the first time in Turkey, and we are proud to share this valuable content with you.

General Manager

Sebahattin KÖK



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GLASS FIBER BASED PRODUCTS

GLASS FIBER BASIC INFORMATION



Products based on fiberglass are used in the temperature range of industrial furnaces and boilers, the iron-steel industry, power plants, cement factories, the maritime sector, and the ceramics and glass industries to provide thermal insulation. They have high tensile strength, dimensional stability, non-flammability, good thermal permeability, good chemical resistance, excellent electrical properties, and the advantage of being economical. Depending on the raw material and production method, fiberglass is divided into five different product groups. The most commonly used classes in the industry are "C-Glass (Chemical)", "E-Glass (Electrical)" and S-Glass (Strength) types. "C-Glass" fiber withstands up to 450 °C, while "E-Glass" fiber withstands up to 600 °C. The melting point is approximately 850 °C. Fiberglass textile products can also be offered with special coatings depending on demand and usage to increase their temperature resistance.

Fiberglass, Carbon, Aramid Comparison			
Specifications	Fiberglass	Karbon	Aramid
Density	P	E	E
Tensile Strength	F	E	G
Compressive Strength	G	E	P
Stiffness	F	E	G
Fatigue Resistance	G-E	G	E
Wear Resistance	F	F	E
Sandblasting / Machining	E	E	P
Permeability	P	E	P
Thermal Resistance	E	E	F
Moisture Resistance	G	G	F
Resin Compatibility	E	E	F
Price Comparison	E	P	F
P: Poor **F**: Fairly Good **G**: Good **E**: Excellent			

Typical Mechanical Properties of Fiberglass				
Fiber Class	Density (g/cm^3)	Tensile Strength MPa	Elastic Modulus GPa	Elongation Percentage %
A-Glass	2.44	3300	72	4.8
C-Glass	2.56	3300	69	4.8
D-Glass	2.11	2500	55	4.5
E-Glass	2.54	3400	72	4.7
ECR-Glass	2.72	3400	80	4.3
R-Glass	2.52	4400	86	5.1
S-Glass (S-2 glass)	2.53	4600	89	5.2
Operating Temperature	Usable up to 482 °C Generally begins to soften above this temperature.			

GLASS FIBER BASED PRODUCTS

GLASS FIBER

GASKET WEAVE TYPES

Diagonal Weave: Also known as diagonal braid. This type of weave was discovered by Henry Crossley approximately 75 years ago. Since then, gasket manufacturers have used this weaving method. This weave has a tight and homogeneous structure, and each strand in the gasket is arranged crosswise at an angle of 45 degrees. This type of weave possesses the density of layered weaves and the flexibility of square weaves.	
Rigid Weave: Also known as square weave. Each strand of thread passes over and under in opposite directions. This weave imparts a soft and flexible structure to the gasket. This structure allows for the inclusion of a large quantity of lubricant into the gasket. It is a suitable gasket weaving type for gear pumps operating at high speeds and low pressures.	
Layered Weave: Also known as layered or round weave. It is formed by weaving layers coaxially on a braided, twisted, or untwisted core. This type of weave results in a round cross-sectional structure. It is then passed through rollers to become square-shaped. Alternatively, it can be produced in a square cross-section by including four corner strands.	
Twisted Weave: This type of weave is suitable for small section gaskets used in valves and pumps with tight radial tolerance packing boxes.	

Glass Fiber Square Section Gasket (S1100)

These are fully braided, dense packing materials with high tensile strength and performance, featuring square/rectangular cross sections. They are produced by braiding glass fiber threads in a manner similar to braiding hair, generally in cross sections ranging from 5 to 100 mm. The roll lengths can vary as 25, 50, or 100 meters depending on the cross-section size. They are braided with square sections in 3-strand and 4-strand cross patterns. Please contact our company for detailed information.



Average 'One Meter' Weights of Standard Sizes													
Cross-section mm^2	4x4	6x6	8x8	10x10	12x12	14x14	16x16	18x18	20x20	25x25	30x30	40x40	50x50
Gr. / m	40	80	100	140	170	250	320	410	560	880	1.250	1.920	2.700

*Production can be carried out in different dimensions.

Glass Fiber Round Section Gasket (S1150)

These are completely braided, dense packing with high tensile strength and performance in a circular cross-section. The glass fiber cords are braided in a plaiting style and are generally produced in cross-sections ranging from 5 to 100 mm. The roll lengths can vary according to the cross-section size, from 25 to 50 to 100 meters.



Average 'One Meter' Weights of Standard Sizes													
Diameter mm	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 35	Ø 40	Ø 50
Gr. / m	30	55	80	120	150	200	280	390	500	800	1.100	1.300	1.500	2.300

Meter / weights may vary.

GLASS FIBER BASED PRODUCTS

GLASS FIBER

Graphite Glass Fiber Gasket (S1200)

Fiberglass gasket is subsequently subjected to a graphite coating process. The graphite coating reduces friction loss.





Application Areas

Fiberglass gasket is widely used in static seal applications. It is used for heat insulation and fire prevention in systems such as containers, heaters, manhole covers, and pipes. It is a suitable material for neutral environments in terms of water, steam, air, oil, and similar chemical properties.

Technical Specifications		
	Fiberglass Gasket	Graphite-Reinforced Fiberglass Gasket
Operating Temperature	450°C~550°C	450°C ~ 550°C
pH Range	5-9	
Density	0.9~1.1 g/cm³	1.1~1.3 g/cm³

Average 'One Meter' Weights of Standard Sizes													
Cross-section mm²	4x4	6x6	8x8	10x10	12x12	14x14	16x16	18x18	20x20	25x25	30x30	40x40	50x50
Gr. / m	40	80	100	140	170	250	320	410	560	880	1.250	1.920	2.700

Foldable Pure Glass Fiber Strip (S1300)

This material is manufactured by coating and pressing a rubber-based material onto fiberglass fabric according to the desired measurements.

*The option with **graphite impregnation** is also available.*







Average 'One Meter' Weights of Standard Sizes																				
Section (W x T) mm x mm		20x3	20x5	20x10	25x3	25x5	25x10	30x3	30x5	30x10	40x3	40x5	40x10	50x3	50x5	50x10	100x3	100x5	100x10
Laminated Fiberglass Tape	Gr./m	150	170	460	220	275	530	200	250	600	240	350	850	320	440	1.000	750	1.000	2.000
Graphite-Lam. Fiberglass Tape		170	190	480	240	295	550	220	270	620	260	370	870	340	460	1.020	770	1.020	2.020

Meter / weights may vary.

GLASS FIBER BASED PRODUCTS

GLASS FIBER BASED PRODUCTS



Fiberglass Woven Tape (S1350)

Glass fiber products are made from high-temperature-resistant glass fibers for environments with an operational temperature of 537 °C. They possess excellent thermal resistance, high tensile strength, low thermal permeability, and very good chemical resistance. They are sturdy, mold-resistant, and harmless to health. Glass fiber products are an ideal material for industrial insulation, sealing felt, and gasket applications.

Main Characteristics

- Resistance to heat, sparks, and flame
- Chemical resistance
- Low thermal conductivity
- High tensile strength, no tensile elongation
- High dielectric strength
- Non-hazardous to health

30-Meter Roll Dimensions and Weight Table																				
Section (Width x Thickness) mm x mm																				
20x2	20x3	20x5	25x2	25x3	25x5	30x2	30x3	30x5	40x2	40x3	40x5	50x2	50x3	50x5	60x5	70x5	80x5	100x2	100x3	100x5	200x2
Gr. / Roll																				
900	1.300	2.000	1.400	1.600	2.200	1.600	1.750	3.000	1.850	2.500	3.900	2.200	3.000	5.250	6.300	7.400	8.600	4.400	6.100	11.500	9.000

Fiberglass Crochet Knit (S1400)

Due to being knitted with a unique knitting technique, it possesses flexibility and longitudinal elongation properties.

Environment : Particularly preferred for stove covers.
Temperature : 600 °C
Size : 6 - 8 - 10 - 12 - 14 mm

Meter / weights may vary.

GLASS FIBER BASED PRODUCTS

GLASS FIBER

Glass Fiber Fabric (S1500)

Weave Style : Plain
Weight : 600 - 3000 g/m²
Thickness : 0.80 - 5 mm
Width : 1 – 1.5 m
Length : 30 – 50 m



Texturized fiberglass fabric is made from bulky yarns obtained by texturizing fiberglass roving with high-pressure air. It features high-temperature resistance, a low thermal conductivity coefficient, corrosion resistance, high dust retention, and excellent filtration. It is not harmful to human health and is a very good alternative to asbestos material.

Technical Specifications

Operating Temperature : - 70 °C ~ 550 °C
Tensile Strength :
Weft : 1200 – 7500 N/5 cm;
Warp : 2000 – 8500 N/5 cm

- Chemical resistance, dimensional stability, good thermal properties
- Low moisture absorption capability, price advantage

Application Areas

- All types of thermal insulation and protection
- Expansion joints, safety equipment, pipe insulation
- In the shipbuilding industry



GLASS FIBER BASED PRODUCTS

PTFE-COATED FIBERGLASS

Double-Sided PTFE Coated Glass Fiber Fabric

The PTFE-coated fiberglass fabric is woven from high-quality E-glass filament yarns. Afterwards, both sides are specially treated and coated with PTFE.



Application Areas

Bands for oven and microwave drying are an excellent and ideal material for welding blankets, fire protection curtains, expansion joint equipment, non-metallic compensators, and corrosion prevention applications.

Technical Specifications									
Fiber and Base Fabric	Coating Type	Weaving Type	Operating Temperature	Fabric Thickness	Fabric Weight	Coated Fabric Weight	Coated Fabric Thickness	Strip Tensile Strength Weft/Warp	Yırtılma Dayanımı Weft/Warp
Fiberglass Fabric	PTFE Coating on Both Sides	Satin	260 °C	0.35 mm	405 g/m²	605 ±10 g g/m²	0.42 ±0.02 mm	2280/3450 N/5 cm	47/49 N/5 cm

Adhesive PTFE Glass Fiber Fabric

This fabric is manufactured from fiberglass fibers that have been specially treated and coated with PTFE. For certain special applications, the back of the fabric is coated with a self-adhesive fabric.



Application Areas

Oven and microwave drying belts, food cooking mats, bakery processes, insulation packaging, separator sheets, and other industrial conveyor belt applications are used.

Technical Specifications										
Criteria		Unit	Values at Different Thicknesses							
		mm	0.08	0.13	0.15	0.25	0.36	0.45	0.6	0.9
Oil Resistance			Good							
Petroleum Resistance			Good							
Acid Resistance			Good							
Alkali Resistance			Good							
Tensile Strength	Warp	N/5 cm	515	1470	1084	2131	2779	2403	4421	6513
	Weft	N/5 cm	488	1172	1155	1815	2112	2737	4188	3311
Fabric Weight										
Before Coating		g/m²	47	104	104	201	254	405	578	799
Fabric Weight										
After Coating		g/m²	145	250	295	500	650	560	1150	1700
Color			Kahve / Siyah					Gri/Siyah	Yellowish-grey	
Weave			Plain							
Operating Temperature		°C	-200 ~ 260							
Thickness Tolerance		mm	±0.003	±0.005	±0.005	±0.01	±0.015	±0.02	±0.003	±0.045
Breakdown Voltage		kV	> 0.7	> 1	> 1.2	> 1.2	> 1.5	> 1.5	> 1.7	> 1.7
Dielectric Constant		10^6 Hz	2.6 ~ 3.2							

GLASS FIBER BASED PRODUCTS

GLASS FIBER

Silicone Coated Glass Fiber Fabric (S1501)



Weight : 500 g/m²
Thickness : 0.50 mm
Width : 1 m, 1.2 m, 1.5 m, 2 m.
Type of Silicone : Wet
Coated Surface : Single side

The glass fiber fabric coated with silicone is covered on one or both sides with specially prepared silicone. It offers high strength, flame retardation, high temperature resistance, chemical resistance, puncture resistance, non-toxic properties, and many other similar advantages.

Technical Specifications

- **Operating Temperature**: - 70 °C ~ 300 °C
- Resistant to ozone, oxidation, light, and weather conditions
- Suitable for use in outdoor environments
- Service life up to 10 years

Application Areas

- Welding blankets
- Heat protection equipment
- Splash protection equipment in foundries
- Conveyor belts
- Expansion joints
- Electrical insulation
- Chemical corrosion resistance
- In aviation
- In maritime
- In the chemical industry
- In power plants
- In the automotive industry
- In the construction industry
- In the pipe and gasket industry

Aluminized Fabric



Aluminized Fabrics are thermal insulation materials produced by integrating a reflective aluminum film into a woven surface based on fiberglass or aramid through a vacuum coating method. They withstand continuous processing temperatures of up to +650 °C and short-term temperatures of up to +750 °C, while reflecting up to 90% of radiant heat. They provide heat protection and energy efficiency in applications such as furnaces, boilers, exhaust lines, and welding areas.

Technical Details

Thickness : 0.25 – 0.60 mm
Weight : 500 – 700 g/m²
Standard Width : 1000 – 1500 mm
Color : Metallic Silver
Features : UV/ozone resistance, chemical inertness, high tear strength in a flexible structure

"Reflective process protection that redirects radiant heat"

REINFORCED FABRICS

Silica Fabric



Silica Fabrics, woven from high-purity (% SiO_2 > %96) silica fibers, are fabrics that provide continuous thermal insulation up to 1000 °C in industrial applications. With LOI < %10 (low combustion residue) and linear shrinkage < %10 values, they offer durable, reliable performance in welding blankets, fire curtains, removable insulation covers, and automotive-defense industry fire protection systems.

Technical Details

Thickness	: 0.30 – 1.50 mm
Weight	: 300 – 1350 g/m²
Standard Width	: 914 – 1300 mm
Color	: Skin color or White
Features	: Chemical inertness, low thermal conductivity, minimal shrinkage

"The industry's most preferred high-temperature barrier"

Aramid (Kevlar®) Fabric



Kevlar® Fabrics are industrial-grade fabrics manufactured from Dupont aramid fiber, possessing superior tensile and tear strength. Withstanding continuous exposure to +260 °C and short-term exposure up to +450 °C, they deliver long-lasting performance in gasket reinforcement, composite sealing tapes, expansion joints, and high-friction surface coatings. Its thin and lightweight structure offers ease of installation even in limited spaces.

Technical Details

Thickness	: 0.30 – 1.20 mm range
Weight	: 200 – 600 g/m²
Standard Width	: 1000 – 2000 mm
Color	: Yellow (natural aramid)
Features	: Low linear shrinkage (< 3%), high thermal stability, excellent abrasion resistance

"High-performance thermal and abrasion barrier for industrial durability"

CERAMIC BASED PRODUCTS

CERAMIC FIBER / BASIC INFORMATION

Ceramic fiber is one of the fiber families with high temperature resistance. It has a wide range of applications in industrial and commercial areas. It is manufactured from alumina-silica material. The fibers are mechanically twisted to increase tensile strength. The fabric is reinforced with e-glass fiberglass, stainless steel, or high alloy steel wire, according to the intended use. Ceramic fiber is chemically an inert material.

Can be used up to a temperature of 1260 °C.

Technical Specifications

- White color, lightweight, flexible, good handling durability, and a well-uniform structure
- Usage range up to 1260 °C, fire-resistant; good dielectric strength
- Low thermal conductivity, low heat capacity, thermal shock resistance
- Excellent corrosion resistance; resistant to most chemicals except for hydrofluoric, phosphoric acid, and concentrated alkalis
- Easy cutting in molds

Application Areas

Commonly used in welding and casting workshops, aluminum and steel rolling mills, boiler insulation, seals, shipping, refineries, power plants, and chemical facilities.

- Expansion joints, safety blankets
- Curtains, welding blankets
- Protective and insulation covers
- Seals, cable or pipe coating, etc.

Technical Specifications	
Density	0.160185 gr/cm^3
Chemical Composition	Al2O3: 47%; Total Al2O3 ve SiO_2: > 97%; Fe2O3: < 1.0%
Tensile Strength	1.72 bar
Operating Temperature	Continuous Operation: 1175 °C, Maximum: 1260 °C
Melting Point	1760 °C

Ceramic Square Cross-Section Gasket (S2000)

It is knitted in 3 and 4-ply cross styles from high-quality ceramic yarns made of alumina-silica material. This square-section material has properties of high temperature resistance and stability, low thermal conductivity, low heat storage capacity, excellent thermal shock resistance, lightness, and good corrosion resistance. It can be produced in desired dimensions.



Average One Meter Weights of Standard Sizes															
Cross-section mm^2	4x4	6x6	8x8	10x10	12x12	14x14	16x16	18x18	20x20	25x25	30x30	35x35	40x40	50x50	60x60
Gr. / m	20	30	65	85	125	140	175	220	320	480	600	800	1.000	1.550	3.900

Meter / weights may vary.

CERAMIC BASED PRODUCTS

CERAMIC FIBER

Ceramic Gland with Circular Cross-Section (S2100)

It is knitted from high-quality ceramic threads made from alumina-silica material. This circular cross-section material possesses high temperature resistance and stability, low thermal conductivity, low heat storage capacity, excellent thermal shock resistance, lightness, and good corrosion resistance. Options reinforced with stainless steel wire and nickel wire are also available.



Application Areas

- Industrial oven doors
- Oven doors
- High temperature pipes
- Vehicles
- Equipment sealing and insulation

Average One Meter Weights of Standard Sizes															
Diameter mm	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25	Ø30	Ø35	Ø40	Ø50	Ø60
Gr. / m	15	25	50	70	100	150	190	220	260	460	550	750	950	1.400	2.000



Meter / weights may vary.

CERAMIC BASED PRODUCTS

CERAMIC FIBER

Ceramic Fiber Woven Tape (S2200)

It is woven from high-quality ceramic threads made of alumina-silica material. Used for high-temperature applications. The ceramic tape can be reinforced with glass fiber. It can be produced with a thickness of 2 mm to 10 mm and a width of 25 mm to 100 mm, up to 100 meters in length. The continuous operating temperature is 982 °C.



Application Areas

- Covers and curtains for protection and insulation
- Wrapping material for cables and pipes
- Expansion joints
- Felt and gasket materials in high-temperature environments
- Oven
- Chimney
- Boilers
- Exhaust Systems

Average One Meter Weights of Standard Sizes											
Cross-section mm²	20x2	30x2	30x3	30x5	40x2	40x5	50x2	50x3	50x5	100x2	100x3
Gr. / m	25	35	45	70	45	98	60	80	120	118	150

Ceramic Fiber Fabric, Telli/Telsiz (S2300)

The ceramic fiber fabric, biodegradable in nature, is a fabric manufactured by weaving high-quality, water-soluble threads. It can be used at high temperatures of up to 1000 °C. This fabric is reinforced with glass fiber and stainless steel wire. This material contains a small amount of binder that does not adversely affect its insulation properties and can burn at low temperatures.

Technical Specifications

Reinforcement material : Fiberglass filament
Weaving type : Plain
Operating temperature : 1000 °C
Thickness : 1.5 – 5 mm
Width : 1 m, 1.2 m, 1.5 m



Application Areas

- Expansion joints
- Safety blankets and curtains
- Welding blankets
- Protective and insulating cover
- Shield
- Gasket
- Used as cable and pipe wrap

Average One Meter Weights of Standard Sizes			
Thickness	2 mm.	3 mm.	5 mm.
Gr. / m²	1,000	1,500	2,500

Meter / weights may vary.

CERAMIC BASED PRODUCTS

CERAMIC FIBER

Ceramic Fiber Board (Sheet) (S2500)

Ceramic fiber board is a vacuum-formed material capable of withstanding higher gas velocities than ceramic fiber blanket. This material is widely used in furnaces, boiler inlets and outlets, and industrial plant chimney linings. Its low thermal conductivity and low heat capacity allow for quick interventions and rapid maintenance at the location where it is used.



Specifications

- Low thermal conductivity
- Low heat capacity
- Lightweight, does not require additional insulation
- Excellent thermal shock resistance
- Resistance to hot gas erosion
- Resistant to most chemical corrosion
- Ease of cutting, handling, and installation
- Low sound transmission
- Resistant to contact with molten aluminum and non-ferrous molten metals
- Contains no asbestos

Application Areas

- In industrial furnaces
- In combustion chambers, boilers, and heaters
- As supportive material for brick and monolithic refractory materials
- For transporting molten aluminum and molten non-ferrous metals
- In expansion joints

Technical Specifications				
Main Characteristics		Test Metod	Unit	Value
Alloys	Al2O3			70 %
	SiO_2			20 %
	Other Metal Oxides			10 %
Density			lbs/in3 (gr./cm^3)	0.075 (2.1)
Operating Temperature			°F (°C)	2,500 (1,370)
Structural Usage Temperature			°F (°C)	1,430 (775)
Compressive Strength		ASTM D-695	psi (MPa)	13,050 (90)
Flexural Strength		ASTM D-790	psi (MPa)	8,400 (58)
Porosity			%	35
Volume Resistivity		ASTM D-257	Ohm x cm	52 x 1010
Dielectric Strength (Across Broad Surface)		ASTM D-149	V/mil (kV/mm	91 (3.6)
Dielectric Constant		ASTM D-150		5.5
Thermal Conductivity (648 °C)		ASTM C-177	BTU/in/hr/ft2 °F	4.69

The fundamental conformity information mentioned here is believed to be accurate and reliable. However, our company does not assume any responsibility for issues that may arise in your applications. It is the user's responsibility to verify the suitability and performance of the material before use.

CERAMIC BASED PRODUCTS

CERAMIC FIBER

Ceramic Fiber Paper (S2400)

It is manufactured from special ceramic fibers obtained through numerous processes. It can be easily cut. It is very suitable as a gasket material in very hot environments. Ceramic fiber paper applications are possible up to 1260 °C.



Specifications

- Excellent elasticity
- High temperature and chemical corrosion resistance
- Thermal shock stability and low thermal permeability
- Low density
- High strength
- Ability to retain shape
- Excellent sound insulation
- Filtering capability
- Thermal resistance up to 1260 °C

Application Areas

- Steel and metallurgy, petrochemicals, automotive, aerospace, etc.
- Thermal insulation where high temperature and chemical resistance are required, gasket, separator, lining
- Protection from fire, sparks, and molten metals
- High temperature and electrical insulation
- High temperature filtration

Technical Details

Density	: 0.160185 g/cm³
Chemical Composition	: Al2O3: 47%; Total Al2O3 and SiO_2: > 97%; Fe2O3: < 1.0%
Tensile Strength	: 1.72 bar
Operating Temperature	: Continuous Operation: 982 °C, Maximum: 1260 °C

Top Measurement List

- 2 x 1.220 mm x 30 metre
- 3 x 1.220 mm x 20 metre
- 4 x 1.220 mm x 15 metre
- 5 x 1.220 mm x 12 metre
- 6 x 1.220 mm x 10 metre
- 10 x 1.220 mm x 6 metre

CERAMIC BASED PRODUCTS

CERAMIC FIBER

Ceramic Fiber Blanket (S2600)

It is made from high-quality ceramic fibers. It is lightweight, flexible, and can be produced in a wide variety of thicknesses, widths, and densities.

Specifications

This material can withstand up to 1260 °C.

It has low thermal conductivity, excellent usability strength, low thermal capacity, thermal shock resistance, and corrosion resistance, with very good sound absorption and fire protection properties.



Application Areas

- In industrial material kilns, heating equipment, high-temperature pipe coatings
- In electric heating boilers, turbine and nuclear insulation
- In wall lining of chemical plants, high-grade reactions, and heating equipment
- For building claddings and insulation against fire
- Insulating furnace doors and covers
- In the production of high-temperature resistant filter material
- In waterproof shutter systems
- For thermal insulation purposes in shipbuilding

Technical Specifications

Density	: 0.064 gr./cm³, 0.096 gr./cm³, 0.128 gr./cm³
Chemical Composition	: Al2O3: 47%; SiO_2: 50%, Total: Al2O3 and SiO_2 > 97%; Fe2O3: < 1.0%
Specific Heat (@ 2000°F)	: 0.27 Kcal/(Kg °C)
Operating Temperature	: Continuous Operation: 982 °C, Maximum: 1260 °C

Top Measurement List

- 13 x 610 x 14.400 mm
- 25 x 610 x 7.200 mm
- 50 x 610 x 3.600 mm

VARIOUS CUSTOM FABRICATIONS

PACKING GLAND ASSEMBLY

Cargo Hold (Ship) Hatch Gasket (S3200)

The inner part is reinforced with PTFE yarn on an EPM and Nitrile rubber O-ring wrapped with glass fiber yarn and special oils, according to the desired measurements. It provides sealing in chemical gases, petroleum products, and fluids, and due to its flexible structure, it also functions as a gasket in covers.



Application Areas

- On tankers
- In refineries
- At filling facilities
- On ship hatch covers

Custom Fabrication of Ceramic and Glass Fiber Gaskets (S3500)

The outer surface is woven in a mesh pattern. Protection is provided against external factors, strengthening the structure and increasing the friction coefficient.





VARIOUS CUSTOM FABRICATIONS

PACKING GLAND ASSEMBLY

White Grease Gasket (S3050)

Manufactured as a square cross-section with a 2-3 layer diagonal weave by impregnating synthetic additive cotton yarn with paraffin and special oils.



Areas of Use

- Ship shafts
- Cold water engines
- Pipe connections
- Shaft bearings

	Shaft	Piston Pump	Valve
PH		4-14	
P (bar)	8	20	60
Vg (m/s)	12	1.5	2
T (°C)		70	

Average One Meter Weights of Standard Sizes															
Cross-section mm²	4x4	6x6	8x8	10x10	12x12	14x14	16x16	18x18	20x20	22x22	25x25	30x30	35x35	40x40	50x50
Gr./m	40	80	90	110	125	190	280	300	380	450	500	750	1000	2000	3400

Boiler Lid Gasket (S3400)

This gasket is manufactured by hot forming glass fiber or ceramic fabric impregnated with graphite and rubber material into desired dimensions. Its ability to easily adapt to irregular surfaces is an important convenience for use.



Wire Reinforced Lid Gasket: Upon request, a lid gasket option made from wire-reinforced fabric can also be provided.

It is recommended to replace the boiler lid gaskets once a year.

Technical Specifications				
	Temperature	Pressure	pH Range	Density
Boiler Cover Gasket	500°C	30 bar	1-14	1.20~1.40 g/cm³
Wire-Reinforced Cover Gasket	500°C	50 bar	1-14	1.40~1.52 g/cm³

Meter / weights may vary.

PTFE BASED PACKINGS

PTFE / BASIC INFORMATION

PTFE was discovered by Roy Plunkett, who was working at Kinetic Chemicals at the time, in 1938 by coincidence. PTFE (Polytetrafluoroethylene) is a synthetic fluoropolymer with a wide range of applications. The best-known commercial brand based on PTFE is Teflon, produced by DuPont.

Uygulama Alanları

Due to its excellent dielectric properties, it is widely used in cable manufacturing for aerospace and computer technologies. It is used in fuel and hydraulic lines due to its very low fluid resistance, in the manufacturing of seals and gaskets for shafts, pumps, and valves due to its low friction resistance, and in the production of gear-like parts due to its non-stick properties.

PTFE Gasket (S4000)

PTFE gaskets have excellent corrosion resistance, self-lubricating, and non-stick properties. This material also has a low heat capacity, the ability to flow when cold, and a significant thermal expansion characteristic.

Application Areas

It is a general-purpose material for most environments. It is a suitable type of packing for low-pressure valves and low-speed shafts.

- Food industry
- Pharmaceutical factories
- Paper industry
- It is used in places where corrosion resistance and purity sensitivity are required, such as the synthetic fiber industry.



Average 'One Meter' Weights of Standard Dimensions															
Cross-section mm²	3x3	4x4	5x5	6x6	8x8	10x10	11x11	12x12	14x14	16x16	18x18	20x20	22x22	25x25	30x30
g/m	25	35	45	70	100	140	170	200	250	280	450	580	650	850	1.250

Technical Information		PTFE Gland Packing	PTFE Greased Gland Packing
Temperature		-150°C - ~ + 260°C	
Pressure	Gear Pumps	15 bar	15 bar
	Piston Pumps	100 bar	100 bar
	Valves	150 bar	200 bar
Shaft Speed		2 m/s	10 m/s
pH Range		0-14	
Density		1.15~1.35 g/cm³	1.55~1.75 g/cm³

Meter / weights may vary.

PTFE BASED PACKINGS

PTFE

Graphite PTFE Gasket (S4050)

Graphite PTFE Yarn is a homogeneous material developed through the processing of high-quality PTFE resin and graphite powder. It has a low coefficient of friction and thermal conductivity. It can be used in most chemical environments.

This packing is braided from graphite PTFE yarns. Its stable high thermal conductivity provides effective sealing, especially at high temperatures and speeds. It causes very little contamination as there are no free graphite particles on the surface.



Sulfur Quality Graphite PTFE Packing

Braided from graphite PTFE yarn.

Oiled Graphite PTFE Packing

Braided from graphite yarns with silicone lubricant.

Application Areas

- Commonly used in piston and gear pumps, as well as valves.
- Delivers better results than pure PTFE packings, especially in high-speed and hot environments.

Technical Information		Graphited PTFE Gland Packing	Sulfur Grade Graphited PTFE Gland Packing	Greased Graphited PTFE Gland Packing
Temperature		-150°C~+280°C		
Pressure	Gear Pumps	20 bar	25 bar	15 bar
	Piston Pumps	100 bar	100 bar	100 bar
	Valves	150 bar	200 bar	200 bar
Shaft Speed		16 m/s	20 m/s	12 m/s
pH Range		0~14		
Density		1.2~1.4 g/cm^3		



PTFE BASED PACKINGS

ARAMID / BASIC INFORMATION

Aramid fiber is a high-performance fiber. The aramid molecules have a characteristic structure with a relatively rigid polymer chain structure. These molecules are bonded by strong hydrogen bonds that effectively transmit mechanical stresses.

The term 'Aramid' is an abbreviation of 'aromatic polyamide'. Aromatic polyamide was first introduced as meta-aramid fiber in the early 1960s. Para-aramid was developed between the 1960s and 1970s.



Application Areas

In the manufacturing of gaskets and in almost every branch of industry, in the aerospace sector, in the production of fire protection equipment.

Technical Specifications

High strength, resistance to abrasion and organic solvents, with dielectric properties and low flammability characteristics.

Aramid Gasket (S4500)

It is a square-section packing made from aramid yarn, impregnated with PTFE and lubricants.

Application Areas

This product is used in areas subjected to much higher pressure due to its steel-like fiber compared to others. It can be used on its own or as a reinforcing material in rings and packings with different characteristics.

- Wet cement
- Iron and steel industry
- Paper industry
- Can be used in water pumps at power plants.



	Shaft	Piston Pump	Valve
pH		2-13	
P (bar)	20	100	100
Vg (m/s)	10	1.5	2
T (°C)	-200~260		

Average Weight per One Meter of Standard Dimensions														
Cross-section mm²	3x3	4x4	5x5	6x6	8x8	10x10	12x12	14x14	16x16	18x18	20x20	22x22	25x25	30x30
Gr./m	20	25	35	80	100	160	200	250	300	380	460	650	850	1250

Meter / weights may vary.

PTFE BASED PACKINGS

PTFE ARAMID PACKING

Graphite PTFE Aramid Gasket (ZEBRA)
Aramid Corner Braided Graphite PTFE Gasket (S4501)

The packing is knitted from graphite-filled PTFE yarn and reinforced at the corners with aramid yarn. Compared to White PTFE Packing with Aramid Corner Braid, this material offers better lubrication, better thermal permeability, and the ability to be used in a wider range of high-pressure operating environments.



Application Areas

- This gasket possesses the strength of aramid fiber and the good thermal permeability and low friction characteristic of graphite PTFE.
- It is widely used in reciprocating pumps, mixers, and valves in the petrochemical, paper, and sugar industries.



Operating Temperature		-150°C ~ +280°C
Pressure	Gear Pumps	25 bar
	Piston Pumps	150 bar
	Valves	200 bar
Shaft Speed		15 m/s
pH Range		2~12
Density		1.45~1.65 g/cm³

PTFE Aramid Gasket (GIRAFFE)
Aramid Corner Braided White PTFE Packing (S4502)

The gasket corner is made of aramid yarns impregnated with PTFE. This structure enhances the lubrication capability of the aramid yarn and positively affects the strength of pure PTFE.

This material is a multi-yarn gasket braided in a zebra pattern from pure PTFE yarn and aramid yarn.



Application Areas

- Designed for use in high-pressure piston pumps, medium-speed centrifugal pumps, and valves. This material can be used in general-purpose steam, gas, solvent, medium-grade acids, and alkalis, as well as in most corrosive fluid environments.
- This packing is used in chip and paper industries, pharmaceutical, food, and sugar factories because it does not stain.

Operating Temperature		-100°C ~ +280°C
Pressure	Gear Pumps	20 bar
	Piston Pumps	100 bar
	Valves	180 bar
Shaft Speed	12 m/s	
pH Range	2~12	
Density	1.45~1.65 g/cm³	

Average Weight per One Meter of Standard Dimensions														
Cross-section mm²	3x3	4x4	5x5	6x6	8x8	10x10	12x12	14x14	16x16	18x18	20x20	22x22	25x25	30x30
Gr./m	20	25	35	80	100	160	200	250	300	380	460	650	850	1250

Meter / weights may vary.

PTFE BASED PACKINGS

Acrylic (Synthetic) Fiber Gasket (S5000)

It is braided from high-strength acrylic synthetic fiber impregnated with PTFE in advance. The packing is re-impregnated with a special PTFE dispersion. This material has a tight structure, low friction, and chemical resistance.



Oiled Synthetic Fiber Packing

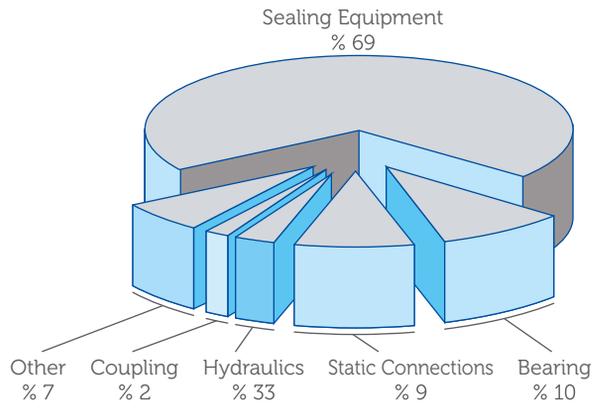
Similar to acrylic fiber packing, the difference is that it is oil-impregnated and contains less PTFE.

Application Areas

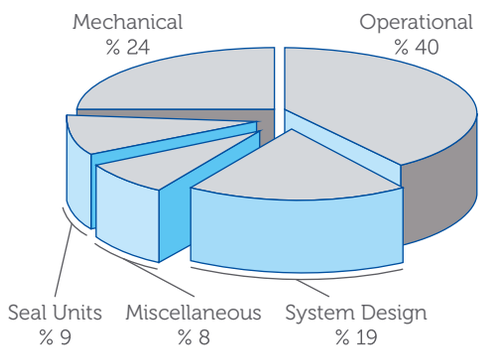
- It is an excellent multi-purpose seal used in a wide range of applications for pumps and valves in a facility.
- It is resistant to most chemicals except very strong acids, alkalis, and oxidizers.
- Particularly suitable for environments with medium temperature, high pressure, high speed, and where contamination is not allowed.

Operating Temperature		200 °C
Pressure	Gear Pumps	20 bar
	Piston Pumps	80 bar
	Valves	100 bar
Shaft Speed		20 m/s
pH Range		1-13
Density (Acrylic Fiber Gland Packing) (Greased Acrylic Fiber Gland Packing)		1.1~1.3 g/cm^3

Average Weight per One Meter of Standard Dimensions												
Cross-section mm^2	6x6	8x8	10x10	11x11	12x12	14x14	16x16	18x18	20x20	22x22	25x25	30x30
Gr./m	80	110	150	180	210	260	300	480	620	700	950	1.400



PUMP UNIT FAILURE RATES



PUMP FAILURE CAUSES

Meter / weights may vary.

GRAPHITE-BASED PACKINGS

Carbon Fiber Reinforced Graphite Packing (S5600)

Carbon Fiber Reinforced Graphite Packing is woven from high-strength, high-modulus elastic, continuous carbon fiber reinforced, low sulfur content, expanded graphite yarns. The graphite powder is impregnated in a molybdenum disulfide and PTFE emulsion mixture and then subjected to a curing process under high temperature. This processed material gains excellent chemical stability, thermal permeability, and high durability.



Carbon Fiber Corner Braided Graphite Packing

This packing is diagonally braided from expanded flexible graphite and corners of high-quality carbon fiber filaments. This type of braiding structure provides three times less sectional contraction compared to regular braiding and enhances compressive strength.

Application Areas

Gear and piston pumps operating in environments containing strong corrosive chemicals and particulates.

Carbon fiber corner braided packings are often used in both static and dynamic sealing applications. Especially under high temperature and pressure conditions, they are extensively used in;

- Valves
- Pumps
- Expansion vessels
- Mixers
- Paper mills
- Power plants
- Chemical facilities

Technical Specifications		Carbon Fiber Reinforced Graphite Gland Packings	Carbon Fiber Corner Braided Graphite Gland Packings
Operating Temperature		-220 °C - ~ + 550°C (+ 650°C in steam)	
Pressure, Shaft Speed	Gear Pumps	25 bar, 20 m/s	50 bar, 20 m/s
	Piston Pumps	100 bar, 2 m/s	150 bar, 2 m/s
	Valves	300 bar, 2 m/s	250 bar, 2 m/s
pH Range		0-14	
Density		1.2~1.4 g/cm^3	0.95~1.15 g/cm^3

Cross-section mm^2	5x5	6x6	8x8	10x10	12x12	14x14	15x15	16x16	18x18	20x20	25x25
Approximate Unit Weight Gr./m	30	40	70	110	155	210	240	270	350	430	660
Coil Weight Kg. / Coil	5									10	
Size: For packings with 1.05 g/cm3 density											

Meter / weights may vary.

GRAPHITE-BASED PACKINGS

Pure Graphite Gasket (S5500)

It is braided from low sulfur expanded graphite yarn reinforced with cotton yarn or fiberglass. This packing provides good thermal conductivity, chemical resistance, and high flexibility. Additionally, it does not damage shafts and spindles due to its low friction coefficient.



Corrosion Prevention Graphite Packings

The corrosion inhibitor provides cathodic protection to valve stems and stem covers against corrosion.

Application Areas

Graphite packings have a wide range of usability throughout a facility. This material is used where sealing is extremely important under high pressure and high temperature conditions, such as:

-
- In hydroelectric power plants
- In paper mills
- In power plants
- In valves used in refineries and industry
- In pumps
- In expansion joints
- In mixers operating at high temperatures

Operating Temperature		-220 °C - ~ +550 °C (+650 °C in steam)
Pressure, Shaft Speed	Gear Pumps	20 bar, 20 m/s
	Piston Pumps	100 bar, 2 m/s
	Valves	300 bar, 2 m/s
pH Range		0~14
Density		1.1~1.3 g/cm³

Cross-section mm²	3x3	4x4	5x5	6x6	8x8	10x10	12x12	14x14	15x15	16x16	18x18	20x20	25x25	30x30	40x40
Approximate Unit Weight Gr./m	18	25	35	45	80	120	175	240	270	300	390	440	700	880	1,250
Coil Weight Kg. / Coil	5											10			
Size: For packings with 1.2 gr./cm³ density															



Meter / weights may vary.

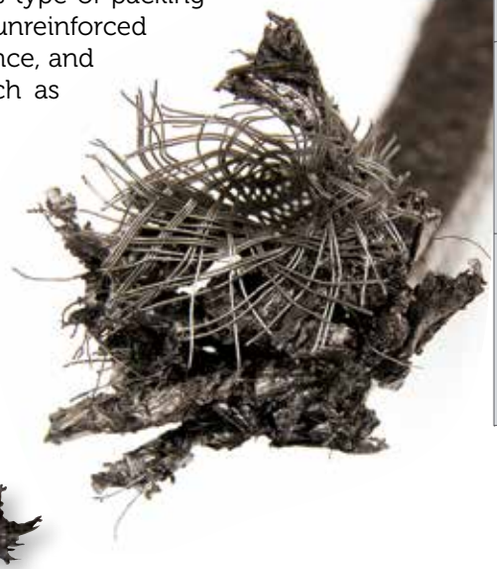
GRAPHITE-BASED PACKINGS

Reinforced Graphite Packing (S5501)

It is braided from expanded graphite yarn reinforced with nickel wire. This type of packing provides high mechanical strength while retaining all the properties of the unreinforced expanded graphite packing, such as thermal conductivity, chemical resistance, and a low coefficient of friction. Other types of reinforcement materials, such as stainless steel wire, can also be used.

Reinforced Graphite Packings can also be given anti-corrosion features.





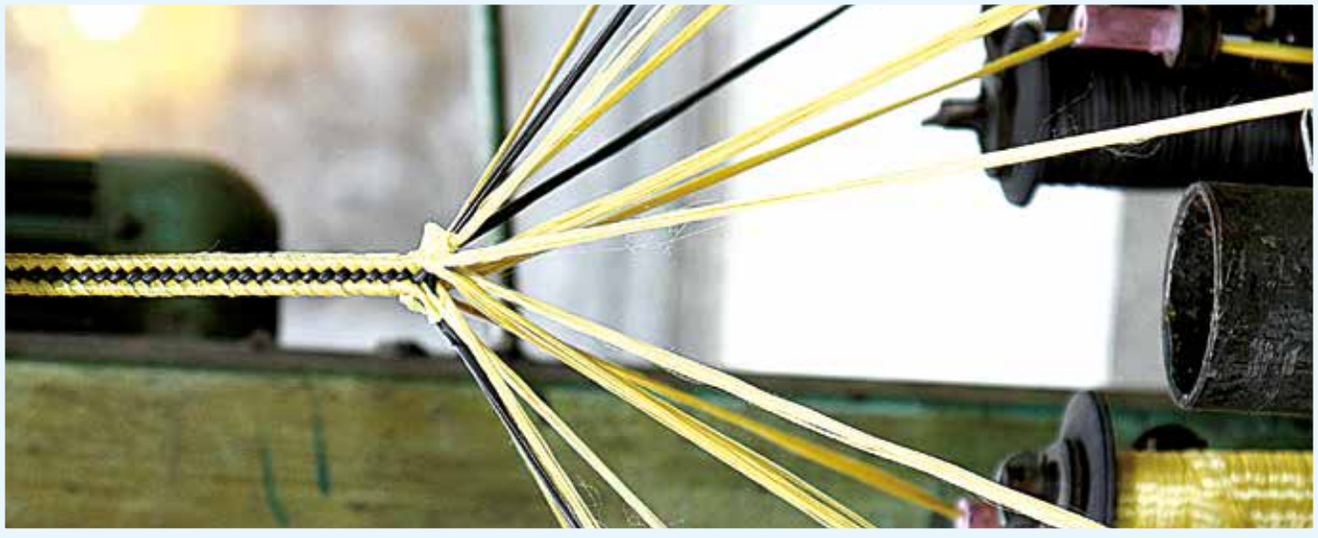
Application Areas

This material has a wide range of applications in a facility.

- Chemical, acid, and alkaline environments, steam turbines
- Valves driven by motors at high temperatures
- High temperature and pressure valves
- Very useful for steam generation facilities.

Operating Temperature		-220 °C - ~ + 550°C (+ 650°C in steam)
Pressure, Shaft Speed	Mixers	50 bar, 2 m/s
	Valves	400 bar, 2 m/s
pH Range		0~14
Density		1.1~1.3 g/cm³

Cross-section mm²	3x3	4x4	5x5	6x6	8x8	10x10	12x12	14x14	15x15	16x16	18x18	20x20	25x25	30x30
Approximate Unit Weight Gr./m	18	25	35	45	80	120	175	240	270	300	390	440	700	880
Coil Weight Kg. / Coil	5											10		
Size: For packings with 1.2 g/cm³ density														



Meter / weights may vary.

INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

ASBESTOS-FREE GASKET SHEET

FEROLITE NAM 49



Application Areas

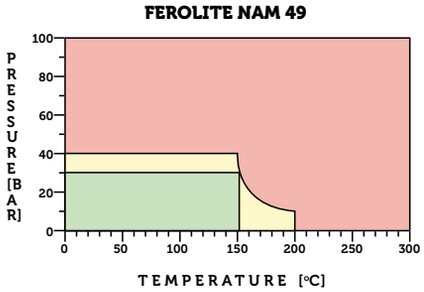
An oil-resistant gasket material suitable for low-temperature and low-pressure operating environments.

Supply Information	
Thickness mm.	0.40, 0.50, 0.75, 1.00, 1.50, 2.00, 3.00, 4.00, 5.00
Sheet dimensions mm.	1500X1500, 1500x2000, 1500X3000, 1500X4000, 1500X4500, 2000x3000.Note: Other dimensions can be provided on request.
Operating conditions	Maximum internal pressure: 40 Kg/cm^2 Maximum temperature: 200°C
General Information	
Material composition (Fiber type)	Produced from organic fiber, mineral fiber, and high-quality elastomer components.
Operating Temperature	200 °C
Maximum internal working pressure	40 Kg/cm^2 (39.2 bar)

Physical properties

The following values are for 1.5 mm thick material.

No	Properties	Unit	Test / Method	Value
1	Density	Gm/cm^3	ASTM F-1315	1.70-2.00
2	Tensile strength	Kg/cm^2	ASTM F 152	60.0 Min.
3	Compressibility	%	ASTM F 36A	5-15
4	Recovery rate	%	ASTM F 36A	> 40
5	In ASTM No. 3 oil		ASTM F 146	
	Mass increase	%		< 15
	Thickness increase	%		< 10
	b) In ASTM fuel B		ASTM F 146	
	Mass increase	%		< 10
	Thickness Increase	%		< 10
	c) 5 hours in 95°C water		ASTM F 146	
	Mass increase	%		< 15
	Thickness increase	%		< 15
	Mass loss at a specific temperature	%	DIN 52911	40.0 Maks.



- General application area, provided that chemical compatibility conditions and known installation principles are applied.
- Maximum performance is ensured by adhering to the appropriate technical values in connection design and gasket installation. It is recommended to seek consultancy services.
- Limited application area. Technical consultancy is mandatory.

NOTE: The information provided above has been prepared with many years of experience in the production and operation of gasket materials. Considering countless assembly and operational conditions, it is not accurate or technically sound to expect the same results from gasket materials in all applications. Therefore, the information provided does not warrant any right to complaint by the user. It is strongly recommended that you test the gasket material under your own operating conditions to reach a definitive conclusion before proceeding to continuous application. Our expert personnel will be pleased to assist you in the selection of gasket materials.

INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

ASBESTOS-FREE GASKET SHEET

Ferolite NAM 49 Graphite Reinforced Sheet with Wire (Reinforced with Steel Wire Mesh)



Application Areas

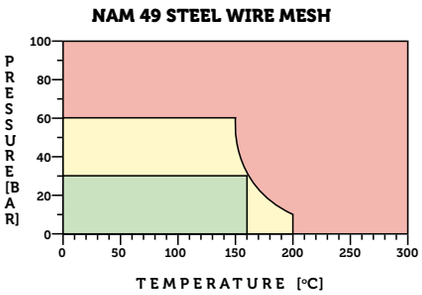
An oil-resistant gasket material suitable for low-temperature and low-pressure operating environments.

Supply Information	
Thickness	Between 0.8 – 6 mm
Sheet dimensions mm.	1500X1500, 1500x2000, 1500X3000, 1500X4000, 1500X4500, 2000x3000. Note: Other dimensions can be provided on request.
General Information	
Material composition (Fiber type)	Produced from organic fiber, mineral fiber, and high-quality elastomer composition. Reinforced with steel wire mesh.
Operating Temperature	280 °C
Maximum internal working pressure	60 Kg/cm² (58.8 bar)

Physical properties

The following values are for 1.5 mm thick material.

No.	Properties	Unit	Test / Method	Value
1	Density	Gm/cm³	ASTM F-1315	1.70-2.10
2	Tensile strength	Kg/cm²	ASTM F 152	60.0 Min.
3	Compressibility	%	ASTM F 36A	5-15
4	Recovery rate	%	ASTM F 36A	> 40
	4a) in ASTM No. 3 oil			
	Mass increase	%	ASTM F 146	< 15
	Thickness Increase	%		< 10
	4b) in ASTM fuel B		ASTM F 146	
	Mass increase	%		< 10
	Thickness Increase	%		< 10
	4c) 5 hours in 95°C water		ASTM F 146	
	Mass increase	%		< 15
	Thickness Increase	%		< 15
5	Mass loss at a specific temperature	%	DIN 52911	40.0 Maks.



- General application area, provided that chemical compatibility conditions and known installation principles are applied.
- Maximum performance is ensured by adhering to the appropriate technical values in connection design and gasket installation. It is recommended to seek consultancy services.
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INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

ASBESTOS-FREE GASKET SHEET

FEROLITE NAM 39



Application Areas

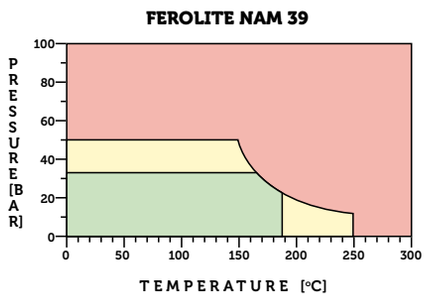
Water and oil-resistant gasket material; used in light to medium load applications. Provides reliable sealing in low operating pressure systems (e.g., transformers, compressors) and in low surface pressure, easily formable parts (e.g., valve covers, engine crankcases).

Supply Information	
Thickness mm.	0.40 – 6.00 (without metal reinforcement); 0.80 – 6.00 (with metal reinforcement)
Sheet dimensions mm.	1500x1500, 1500x2000, 1500x3000, 1500x4000, 1500x4500, 2000x3000 Note: Different sizes can also be supplied upon request.
Operating conditions	Maximum internal pressure: 250 kg/cm² Maximum temperature: 180 °C
General Information	
Material composition (Fiber type)	Produced from cellulose fiber, mineral fiber, and organic fiber components.
Operating Temperature	180 °C
Maximum internal working pressure	250 kg/cm²

Technical Properties

The following values are for 2 mm thick material.

No.	Properties	Test Method	Unit	Value
1	Density	----------	gm/cm³	1.80 - 2.00
2	Tensile strength			
	(a) ACC To ASTM F152 (Perpendicular to Grain Direction)		N/mm²	> 7
	(b) ACC To DIN52910 (Perpendicular to Grain Direction)		N/mm²	> 5
3	Compressibility	ASTM F36A	%	7 – 15
4	Recovery rate	ASTM F36A	%	> 40
5	Liquid absorption			
	(a) in ASTM No. 3 oil	ASTM F 146		
	Mass increase		%	< 15
	Thickness increase		%	< 10
	(b) in ASTM Fuel B	ASTM F 146		
	Mass increase		%	< 10
	Thickness increase		%	< 10
	(c) in water + antifreeze	ASTM F 146		
	Mass increase		%	< 15
	Thickness increase		%	< 7
6	Mass loss at a specific temperature	DIN 52911	%	< 40
7	Stress resistance (16h at 175°C)	DIN 52913	N/mm²	10



- General application area, provided that chemical compatibility conditions and known installation principles are applied.
- Maximum performance is ensured by adhering to the appropriate technical values in connection design and gasket installation. It is recommended to seek consultancy services.
- Limited application area. Technical consultancy is mandatory.

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INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

ASBESTOS-FREE GASKET SHEET

FEROLITE NAM 42 GF

Application Areas

It is a suitable gasket material for light loads resistant to water/oil, and is an appropriate material for transformers, compressors, and apparatuses. It is used in easily deformable parts like rocker covers and crankcase housings of internal combustion engines with low surface pressure.



General Information	
Thickness mm.	0.30, 0.50, 0.75, 1.00, 1.50, 2.00, 3.00, 4.00, 5.00
Sheet dimensions mm.	1500x1500, 1500x2000, 1500x3000, 1500x4000, 1500x4500, 2000x3000. Note: Other dimensions can also be provided upon request.
Operating conditions	Maximum internal pressure : 145 bar Maximum temperature : 440 °C
General Information	
Material composition (Fiber type)	Manufactured from mineral fiber, high-quality NBR, and organic fiber.
Binder	NBR
Operating Temperature	350°C
Maximum continuous operating temperature	440°C
Maximum continuous operating temperature in steam	250°C
Maximum operating pressure	145 bar

INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

DONIT-TESNIT GASKET SHEET / TESNIT® BA-50

Gasket Material with Good Mechanical and Chemical Properties

TESNIT® BA-50 is a special gasket material based on aramid fiber and NBR. The gasket material TESNIT® BA-50 has excellent chemical and dynamic resistance. It has a wide range of applications. It is used in the gas, food, and chemical industries.



Specifications and Application Areas

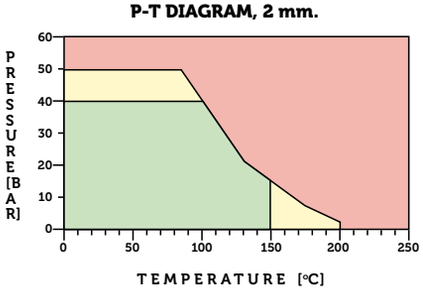
For low-level loads; water, gas, oil it is a gasket material resistant to fuel.

Main Components : Aramid fiber, NBR
Approval: DVGW 3535/6, DVGW KTW, DVGW W270, CRS, Germanischer Lloyd, TA LUFT (VDI 2440) , TARC/MRPRA, WRAS/WQc

Surface Treatment:
If desired, the surface of the gasket material is subjected to graphite, PTFE, and antistatic coating processes.

Standard Sheet Dimensions
Width x Height (mm) : 1000 x 1500 | 1500 x 1500 | 3000 x 1500 | 4500 x 1500
Thickness (mm) : 0.5 | 0.8 | 1.0 | 1.5 | 2.0 | 3.0
* Other sizes and thicknesses can be accommodated upon request.

Technical Information Typical values for 2 mm thick material.	Standard	Unit	Value
Compressibility	ASTM F36/J	%	8
Recovery rate	ASTM F36/J	%	45
Tensile strength	DIN 52910	MPa	9
Stress resistance	DIN 52913		
16 h, 300 °C, 50 MPa		MPa	20
16 h, 175 °C, 50 MPa		MPa	25
Specific leakage rate	DIN 3535/6	mg/(s.m)	0.08
Thickness increase	ASTM F 146		
Oil IRM 903, 5 h, 150 °C		%	10
ASTM Fuel B, 5 h, 23 °C		%	10
Operating Temperature			
Peak temperature		°C/°F	280/536
Continuous operating temperature		°C/°F	220/428
- in steam -		°C/°F	180/256
Pressure		bar/psi	80/1160



■ General application area, provided that chemical compatibility conditions and known installation principles are applied.

□ Maximum performance is ensured by adhering to the appropriate technical values in connection design and gasket installation. It is recommended to seek consultancy services.

■ Limited application area. Technical consultancy is mandatory.

In a known application, the best method to determine gasket compatibility is by using the P-T diagram. The highest values of P-T can be misleading. Maximum temperature and maximum pressure should not be used simultaneously. Maximum values are provided purely for indicative purposes. These values are related both to the gasket material properties and to the operating conditions. It is recommended to use the P-T diagram when selecting a gasket.

INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

DONIT-TESNIT GASKET SHEET / TESNIT® BA-203

Gasket Material for Medium-Level Loads

TESNIT® BA-203 is a special gasket material based on aramid fiber and NBR. It has good resistance to water, gas, oil, and fuel.



Specifications and Application Areas

For medium-level loads; Water, Gas, Oil, A gasket material with good resistance to fuel.

Main Components : Aramid fiber, NBR

Approval: Germanischer Lloyd, DVGW KTW, DVGW W270

Surface Treatment:

Upon request, the gasket material surface is subjected to graphite, PTFE, and antistatic coating processes.

Standard Sheet Dimensions

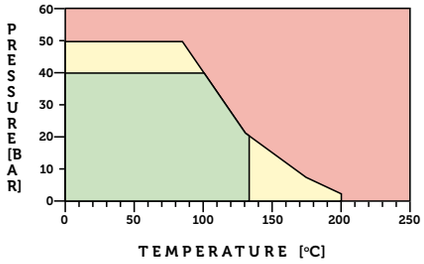
Width x Height (mm) : 1000 x 1500 | 1500 x 1500 | 3000 x 1500 | 4500 x 1500

Thickness (mm) : 0.5 | 0.8 | 1.0 | 1.5 | 2.0 | 3.0

* Other sizes and thicknesses can be accommodated upon request.

Technical Information Typical values for 2 mm thick material.	Standard	Unit	Value
Compressibility	ASTM F36/J	%	9
Recovery rate	ASTM F36/J	%	55
Tensile strength	DIN 52910	MPa	8
Stress resistance	DIN 52913		
16 h, 300 °C, 50 MPa		MPa	
16 h, 175 °C, 50 MPa		MPa	25
Specific leakage rate	DIN 3535/6	mg/(s.m)	0.08
Thickness increase	ASTM F 146		
Oil IRM 903, 5 h, 150 °C		%	10
ASTM Fuel B, 5 h, 23 °C		%	10
Operating Temperature			
Peak temperature		°C/°F	250/482
Continuous operating temperature		°C/°F	200/392
- in steam -		°C/°F	160/320
Pressure		bar/psi	50/725

P-T DIAGRAM, 2 mm.



- General application area, provided that chemical compatibility conditions and known installation principles are applied.
- Maximum performance is ensured by adhering to the appropriate technical values in connection design and gasket installation. It is recommended to seek consultancy services.
- Limited application area. Technical consultancy is mandatory.

In a known application, the best method to determine gasket compatibility is by using the P-T diagram. The highest values of P-T can be misleading. Maximum temperature and maximum pressure should not be used simultaneously. Maximum values are provided purely for indicative purposes. These values are related both to the gasket material properties and to the operating conditions. It is recommended to use the P-T diagram when selecting a gasket.

INDUSTRIAL AND AUTOMOTIVE INDUSTRY GASKET SHEETS

ASBESTOS-FREE GASKET SHEET

Gasket Paper / Ferolite 9060

This material, which has an excellent sealing feature, is a blend of reinforcement fiber material and nitrile rubber. It is an economic gasket material alternative for flexible gaskets in applications involving environments with oil, fuel, and water contact, such as carburetors, gearboxes, and crankcase covers.

Maximum operating temperature: 220 ^{0}C.



Technical Information Specification values are determined according to ASTM F-104.		
Physical Properties	Unit	Typical Value
Density	Gr/cm^3	1.25 ±0.05
Compressibility, 350 Kg/cm^2 yükte	%	15-30
Recovery rate (Min.)	%	25
Tensile strength	Kg/ cm^2	110

Fluid Absorption		
Weight increase	Unit	Typical Value
ASTM No. 3 oil 22 hr @ 21 – 30 ^{0}C (Maks.)	%	45
ASTM Fuel B 22 hr. @ 21 – 30 ^{0}C (Maks.)	%	40
Distilled water 22 hr. @ 21 – 30 ^{0}C (Maks.)	%	45

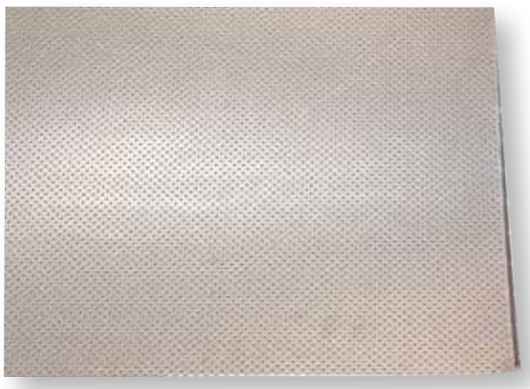
Thickness Increase	Unit	Typical Value
ASTM No. 3 oil 22 hr. @ 150 ^{0}C (Maks.)	%	20
ASTM yakıt B 5 hr. @ 21 – 30 ^{0}C (Maks.)	%	20
Distilled water 22 hr. @ 21 – 30 ^{0}C (Maks.)	%	20

Standard Dimensions	Unit	Typical Value
Thickness	mm	0.4-1.5 Rulo
Roll width	mm	1000 ±20
Roll weight	Kg	100

VARIOUS GASKET PLATES

PERFORATED SHEET WITH HAIR

Manufactured by perforating the tin-coated metal in both directions (through perforation) and laminating cellulosic-based heat and oil-resistant paper onto the surfaces.





Application Areas

- Cylinder head gaskets for automotive engines
- Exhaust gaskets
- Manifold gaskets are used in manufacturing.

Technical Properties		
Thickness	Dimensions	Color
1 mm. - 2.2 mm.	508 mm. x 40 m.	Grey - Black

Standard Measurements per Meter Weight					
Thickness mm.	1.20	1.40	1.60	1.80	2.00
g / m	1.600	1.750	2.000	2.200	2.350

Pressed Wool Felt

Knitting, sewing, or gluing is not involved in production; it is a material created by bonding fibers made entirely of wool or other synthetic fibers together, offering a wide range of applications. It can be thick or thin, soft or hard, or white or colored. This material, made entirely of wool, has countless applications. Some of these are listed below.



Application Areas

- In dust collection and insulation
- As floor polishers
- In industrial glove manufacturing
- As lubrication wicks
- In oil, air, and liquid filters
- In sealing oil and grease
- In packaging
- In polishing and buffing
- In printing rollers
- As window channel packing
- As strip metal wipers

Technical Properties				
Density	Tensile Strength	Compressibility Recovery	Temperature Resistance	Sound Reduction
0.42 gr/cm^3	3500 kn/mm^2	%98	-80 °C - 180 °C	0,45

Meter / weights may vary.

GRAPHITE BASED PRODUCTS

PURE GRAPHITE SHEET / GRAPHITE ROLL

Flexible Graphite Sheet is made with embossed pure mineral graphite. Our graphite sheets have a carbon purity of 99%. High carbon purity provides the flexible graphite sheet with better chemical resistance, better thermal conductivity, and better sealing properties. As gasket material, graphite is produced in layers or as reinforced graphite sheets and is widely used in fluid sealing areas. This material can be used as a solid lubricant in metal cutting and shaping processes, and as a heat insulation material in industrial furnaces and other thermal processing machines.

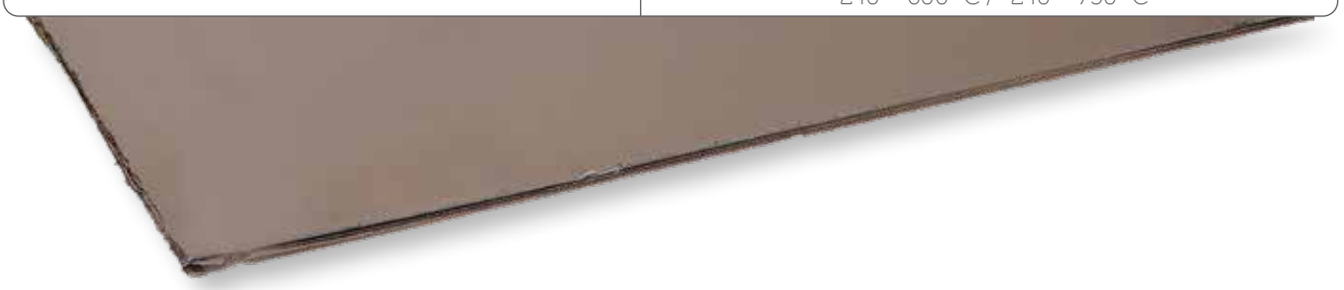
- High carbon content, minimum 99%
- Contains no asbestos, rubber, or binding agents. (100% Asbestos free)
- Resistant to chemicals, oxidation, and corrosion.



Application Areas

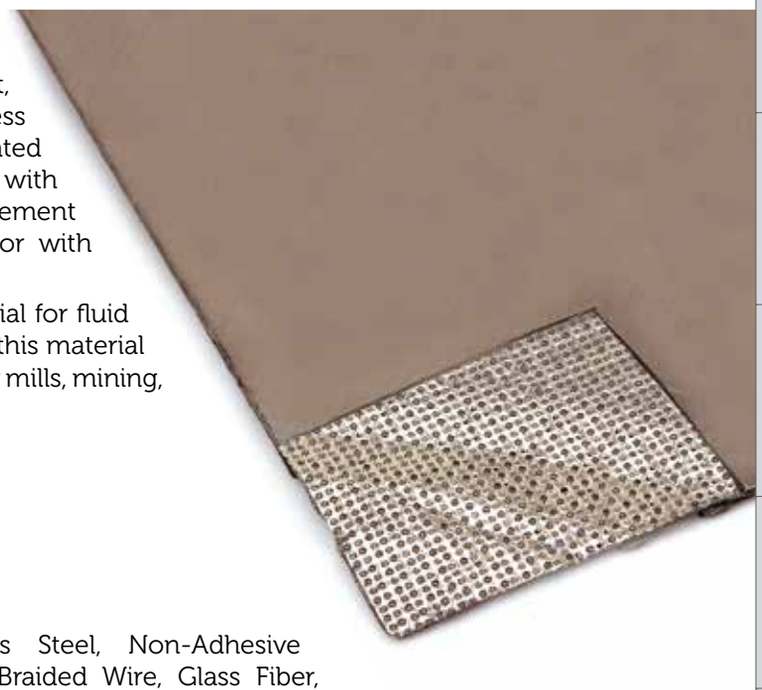
- Flange gasket
- Spiral wound gasket
- Heat exchanger gaskets, etc.

Technical Properties			Application Area
Value	Graphite sheet	Graphite roll	This product has excellent characteristics such as thermal stability, suitability for very low and high temperatures, and corrosion resistance. It is used in molded sealing rings and various gasket manufacturing.
Density	0.7 – 1.2 g/m³	0.7 – 1.1 g/m³	
Length	≤ 1000 mm	30 - 100 m	
Width	≤ 1000 mm	≤ 1000 mm	
Thickness	0.5 - 5 mm	0.2 - 0.8	
	Class I	Class II	
Density toleransı, gr/cm³	± 0.05	± 0.06	
Thickness toleransı, mm	± 0.03	± 0.04	
Carbon content, %	99	98	
Tensile strength, MPa	≥ 4.5	≥ 4.5	
Compressibility, %	> 40	> 40	
Recovery rate, %	> 10	> 10	
Sulfur content, ppm	< 700	< 1000	
Chlorine content, ppm	< 35	< 50	
Stress relaxation rate, %	10	10	
Mass loss at high temperature, %	< 0.5	< 1	
Pressure	30 Kgf/cm²		
pH	0 - 14		
Operating temperature	**Oxidizing / non-oxidizing environment:** -240 ~ 600 °C / -240 ~ 750 °C		



REINFORCED GRAPHITE SHEET

PERFORATED / WIRE-REINFORCED SHEET



Reinforced Graphite Sheet is manufactured from pure flexible graphite sheets reinforced with metallic material. As reinforcement material between the sheet, one or two layers of stainless perforated sheet, stainless foil, stainless braided wire, or carbon steel perforated sheet are used, and both sides of the sheet are coated with pure graphite sheet. The graphite layers and reinforcement materials are bonded to each other mechanically or with adhesive.

Reinforced Graphite Sheets are an ideal gasket material for fluid sealing in most industries. It is recommended to use this material in refineries, chemical and petrochemical plants, paper mills, mining, and other industrial areas.

- High carbon content (Min. 99%)
- Ease of cutting
- Operating temperature (Max. 650 °C)
- Good resistance to chemicals and corrosion
- **Reinforcement Materials:** Perforated Stainless Steel, Non-Adhesive Perforated, Stainless Steel, Stainless Steel Foil, Braided Wire, Glass Fiber, Tinned Perforated Sheet

Standard Dimensions	Thickness	Width	Length
Sheet	0.8- 6 mm	1000, 1500 mm	1000, 1500, 2000 mm

Technical Information			
Metal Reinforcement Types	304/316 Perforated, 304/316 Flat Foil, Stainless Braided Wire, Glass Fiber	Chloride Content	≤ 50 ppm
Bonding Method	Mechanical method (compression) or chemical method (adhesion)	Sulfur Content	≤ 1200 ppm
Number of Reinforcements	1 or 2 layers	Temperature	≤ 650 ^{0}C
Graphite Density	1.10 gr./cm^{3}	Pressure	≤ 140 bar
Thickness Toleransı	± 0.05 mm	Compressibility	≤ % 40
Carbon Content	% 99	Recovery rate	≤ % 20
Ash Content	≤1%	pH	0-14



GRAPHITE BASED PRODUCTS

REINFORCED GRAPHITE GASKET

Reinforced Graphite Gasket is made by cutting or molding from reinforced graphite sheets. Graphite gaskets offer excellent corrosion resistance, high-temperature resistance, and excellent compressibility and recovery properties. This material is widely used in pipelines, valves, pumps, pressure vessels, heat exchangers, condensers, generators, pressure machines, exhaust pipes, and coolers. Reinforced Graphite Gasket is highly suitable for cutting complex-shaped gaskets such as water meter, full surface pressing flange, and automotive engine cylinder head gasket.



Reinforcement Materials: Perforated Stainless Steel, Stainless Steel Foil, Tinned Perforated Sheet, Braided Wire, Glass Fiber, Aluminum Foil

- The gasket's outer and inner edge can be reinforced with a ring upon request.

Technical Information								
Carbon Content	Ash Content	Chloride Content	Sulfur Content	Operating Temperature	Operating Pressure	Compression Ratio	Recovery Ratio	pH
% 99	≤ % 1	≤ 50 ppm	≤ 1200 ppm	≤ 650 °C	≤ 140 Bar	%15-%35	≤ % 20	0-14

Pure Graphite Ring

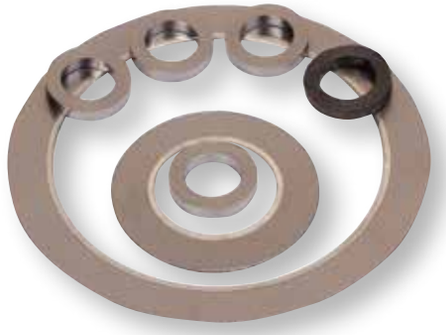
Pure Graphite Rings are manufactured by precisely compressing layers of pure expanded graphite under high pressure in precision molds.



- High operating temperature and pressure
- Self-lubricating (Very low coefficient of friction)
- Cross-section: Square, round, V-shaped, and triangular
- Can be cut at 45 °C

Technical Information								
Density	Carbon Content	Ash Content	Chloride Content	Sulfur Content	Operating Temperature	Operating Pressure	Speed	pH
1.6-1.8 gr/cm³	% 99	≤ % 1	≤ 50 ppm	≤ 1200 ppm	≤ 550 °C	≤ 550 bar	2-10 m/s	0-14
Dimensions								
Inner Diameter			Outer Diameter			Thickness		
3-1000 mm			6-1100 mm			≥ 0.6 mm		





RUBBER BASED PRODUCTS

FABRIC - PURE RUBBER SHEET



The main component of the fabric-reinforced rubber sheet is predominantly SBR, while NR, NBR, CR, EPDM, and silicone rubber are also used. It is reinforced with one or more layers of cotton, polyester, nylon, or fiberglass weave. This reinforcement gives the material added stability in flange gasket applications where mechanical connections are made and reduces the material's cold flow in areas subjected to high compressive loads.

Application Areas

Fabric-reinforced neoprene rubber sheet is used in areas where minimal oil resistance is required and in lines where the transfer of hot and/or cold water and gas takes place. Examples of such areas include measuring and control instruments, regulators, pumps, and diaphragms.

Fabric-reinforced SBR sheet is used in hydraulic systems and in air, water, and low pressure steam transition lines.

Fabric-reinforced NBR (Buna-N) sheet is used in areas where resistant material is required against oil, caustic substances, and aliphatic hydrocarbons.

Physical and Chemical Properties									
Hardness Shore A	Tensile Strength MPa	Elongation % Min.	Operating Temperature ^{0}C	Density gr/cm^3	Chemical Resistance	Adhesion to Metal	Dimensions		
							Width m	Length m	Thickness mm
60-70	3-8	200	-28~70	1-6 - 1,80	Good	Good	1-3	1-20	1-20



Storage Conditions

- Store in a cool, dry place below 21 °C
- Keep away from direct heat and open flames
- Prevent contact with solutions and other fluids
- Do not allow exposure to direct sunlight
- Store in secure packaging to prevent moisture absorption
- Do not subject to tensile or compressive loads
- Store in a manner that prevents deformation

Sandblasting Rubber Sheet



It is a material with a fairly high natural rubber content. It has moderate resistance to industrial oils, acids, alkalis, and heat. It possesses excellent anti-shock and sealing properties. It can be made with both sides either flat or with a fabric pattern.

Application Areas

It is used in sandblasting cabinets in the textile industry, printing machines, and general-purpose flooring due to its good physical and chemical properties. It can also be used as material for gaskets, felt, o-rings, and washers.

Physical and Chemical Properties

Resistant to abrasion and low concentration acidic environments.

Main Material : SBR
Hardness : 65 Shore A
Operating Temperature : -30 °C ~ 80 °C
Color : Brown

RUBBER BASED PRODUCTS

NITRILE (NBR) SHEET



Nitrile rubber is a suitable polymer material for applications resistant to oil and solution. It is also known as NBR or Buna-N.

Application Areas

Generally, it has good resistance to gases, aliphatic hydrocarbons, oil, and fuels; however, its resistance to ketones, sunlight, aromatic oil, flame, and weather conditions is weak. It has a wide range of applications. Its gas permeability capability is moderate.

Physical and Chemical Properties								
Hardness Shore A	Tensile Strength MPa	Elongation % Min.	Operating Temperature ^0C	Density gr/cm^3	Color	Dimensions		
						Width m	Length m	Thickness mm
60-70	4-8	200-400	-30 ~ 120	1.4-1.5	Main colors	1-3	1-50	1-100

Dielectric (Insulating Mat) Rubber Sheet



Specifically manufactured from **NBR/SBR/NR** to provide high insulation properties. It has a rapid electrical discharge capability.

Application Areas

- Transformer building floors
- Electric panel floor covering
- Electronics
- Textiles
- Printing
- Painting
- It is extensively used in facilities like places where high dielectric strength is required.

Physical and Chemical Properties						
Hardness Shore A	Tensile Strength MPa	Elongation % Min.	Operating Temperature ^0C	Oil Resistance	Chemical Resistance	Electrostatic Pressure Attenuation Time s
55-65	3-4	200 %	-20 ~ 110	Good	Good	0.1
Outdoor Conditions	Abrasion Resistance	Density Gr/cm^3	Uzunluk m	Genişlik m	Thickness mm	Color
Very good	Medium	1,6-2	5-30	1-1.6	1-30	Black, Gray, Red

RUBBER BASED PRODUCTS

TRANSPARENT AND RED SILICONE SHEET

Silicone sheet is particularly the most widely used material among all synthetic rubbers in terms of operating temperature. Silicone rubber is a highly elastic material that does not undergo chemical reactions.



Application Areas

It is widely used in the medical and food industry. With its high temperature resistance, it is a material that has a wider range of applications than all other synthetic rubbers. Silicone rubber is a highly elastic material that does not engage in chemical reactions. In addition to its temperature resistance, its water resist and electrical insulation properties are excellent.

- Non-stick, durable
- Resistant to oil, aging, industrial acids, and alkalis
- Excellent elasticity
- Harmless to human health and odorless

Dimensions			
Length m	Thickness mm	Standard Width m	Maximum Width m
5 - 30	1 - 100	1 – 1.2 – 1.5	4

Technical Information					
Property	Density g/cm³	Hardness Shore A	Tear Strength N/mm	Tensile Strength (MPa)	Operating Temperature °C
Value	1.25	50-60	26-42	6-8	180 - 240

Viton® Sheet



Viton® Seals, based on fluoroelastomer, are industrial gasket materials that provide continuous flexibility and sealing across a wide temperature range from -20 °C to +300 °C. They exhibit high chemical resistance to fuels, oils, solvents, acids, and bases. They offer long-lasting performance in O-rings, static and dynamic seals, diaphragms, and rubber-coated metal gaskets.

Technical Details

Shore A Hardness : 75 +/- 5 shore
Thickness Measurements : 0.50-5 mm
Width : 1000-1200 mm
Density : 2,200-2,300 kg/cm³
Features : Low compression set, excellent ozone and weather resistance, wide chemical compatibility

"Durable sealing solution against high temperature and chemicals"

RUBBER BASED PRODUCTS

DIAPHRAGM RUBBER



Rubber sheets are manufactured from various types of rubber such as SBR, NBR, CR, and EPDM.

Materials such as cotton, nylon, and Terylene are used as reinforcement materials. Depending on the purpose and material thickness, multiple layers can be used. Generally, single layers are used at thicknesses of 0.50, 1, and 1.5 mm, while double layers are used at thicknesses of 2, 2.5, and 3 mm. The surfaces can be very smooth or have a fabric appearance. They are durable, easy to use and clean. They possess good tear and oil resistance. In diaphragm rubber, while maintaining the rubber properties, resistance to punctures and tears is enhanced with reinforcement material. Optionally, one layer of reinforcement fabric material can be added for every 1.6 mm thickness of rubber.

Application Areas

- Automotive
- Chemical and transportation sector
- Heavy machinery
- Oil and gas exploration
- Drilling activities
- Oil refinery facilities
- Transportation works



Fabric-reinforced diaphragm rubbers are used as primary or auxiliary materials for tools and parts such as floor tiles, gaskets, multilayer gaskets, seals, coatings, vibration dampers, and expansion compensators in the facilities mentioned above.

Corrosion resistance, impact resistance, and wear resistance are particularly important for protecting precision machinery and equipment from impacts. Corrosion-resistant diaphragm rubbers are widely used in power plants, sulfur purification facilities, and water treatment plants where such protection is required.

Technical Properties							
Length	Width	Thickness	Operating Temperature	Tensile Strength	Hardness Shore A	Elongation	Density
5 – 20 m	1, 1.2 - 1.5 mm	2 - 40 mm	-30~90 °C	> 3 MPa	50 – 80	200 % – 400 %	1.5 – 1.8 gr/cm^3

PVC BASED PRODUCTS

Transparent PVC Sheet (Door Panel)



PVC (Polyvinyl Chloride) is the most widely used polymer in the world after polyethylene and polypropylene. It is easy to apply. It is long-lasting. It has a very smooth and glossy appearance.

Application Areas

It is an excellent material for flooring and door lining. It has a wide range of applications in the chemical industry, corrosion prevention technologies, and the electrical and electronics industry.

Technical Information				
Property	Density g/cm^3	Thermal Conductivity W/(m·K)	Yield Stress psi	Electrical Resistance Ω m
Value	1.1–1.35	0.14–0.17	1450–3600	1012–1015

Standard Size Weights per Meter						
Width		1 mm.	2 mm.	3 mm.	4 mm.	5 mm.
1200 mm. (10 m. Roll)	g/m	1.500	3.000	4.500	6.000	7.500
200 mm. (50 m. Roll)		-	500	750	-	-
300 mm. (50 m. Roll)		-	750	1.125	-	-
400 mm. (50 m. Roll)		-	1.000	1.500	-	-

PVC Upholstery Sheet



It is used in all types of industrial areas, automotive, elevators, and as a flooring material. It is easy to apply and clean. Available in various colors and patterns.

Width : 1.2 - 2 m.
Height : 16 m.

Meter / weights may vary.

PTFE

SHEET - ROD - FABRIC - FILM

PTFE was accidentally discovered in 1938 by Roy Plunkett, who was working at Kinetic Chemicals at the time. PTFE (Polytetrafluoroethylene) is a synthetic fluoropolymer with a wide range of applications. The best-known commercial brand based on PTFE is Teflon, produced by DuPont.



Application Areas

Due to its excellent dielectric properties, it is widely used in the manufacture of cables for aerospace and computer technologies. It is also used in fuel and hydraulic lines due to its very low fluid resistance, in the manufacture of seals and gaskets for shafts, pumps, and valves due to its low friction resistance, and in the manufacture of gear-like parts due to its non-stick properties.

General PTFE Properties		
Heat	Flame Resistance	Friction and Wear
PTFE maintains its properties even when exposed to temperatures beyond the thermal limits of almost all plastics and elastomers. Depending on end-use requirements, its continuous service temperature is 260 °C, and it can withstand even higher temperatures for short periods.	PTFE offers excellent high-temperature and flame resistance with a high melting and decomposition temperature. Flame-spread characteristics such as heat release and flame production rates are extremely low.	PTFE has the lowest coefficient of friction among solid materials. Its wear resistance can be enhanced with glass fiber, carbon, or graphite depending on the intended application.
Environmental Contamination	Adhesion / Separation	Low-Temperature Performance
PTFE is chemically pure and inert. It contains no oils, stabilizers, plasticizers, antioxidants, or other additives that could contaminate process fluids.	In solid form, PTFE has extremely low surface energy, providing an excellent non-stick and non-wetting surface.	PTFE retains its excellent properties even at very low temperatures. Its impact resistance at such temperatures exceeds that of most other polymers.
Corrosion	Service Life	Light Stability
PTFE exhibits outstanding chemical resistance and withstands most aggressive organic and inorganic chemicals, acids, and solutions over a wide temperature range.	PTFE maintains its properties even when exposed to oils, solvents, UV radiation, oxidizers, other environmental agents, and high temperatures. It resists discoloration and brittle cracking.	PTFE has the lowest refractive index among solid polymers. Exposure to ultraviolet and infrared radiation does not alter its appearance.
Dielectric	Biodegradation	Moisture
PTFE provides excellent dielectric strength and dielectric constant with a very low loss factor. Its dielectric performance remains highly stable across wide environmental conditions, outperforming most materials.	In its pure form, PTFE is inert to microbiological and enzymatic attack because it provides no nutrients or porous structure for microorganisms to grow.	PTFE is completely resistant to chemical reaction and acts as an excellent barrier to water. Even after prolonged exposure, its chemical, physical, and dimensional properties remain unchanged.

Technical Properties								
Hardness Shore A	Density gr/cm³	Melting Temperature	Thermal Expansion	Tensile Strength	Yield Strength	Friction Coefficient	Dielectric Constant	Dielectric Strength
50-60	2.2 gr./cm³	326 °C	135.10^{-6} K^{-1}	3900 psi	230 bar	0.05-0.10	2.1 1 MHz	60 MV/m

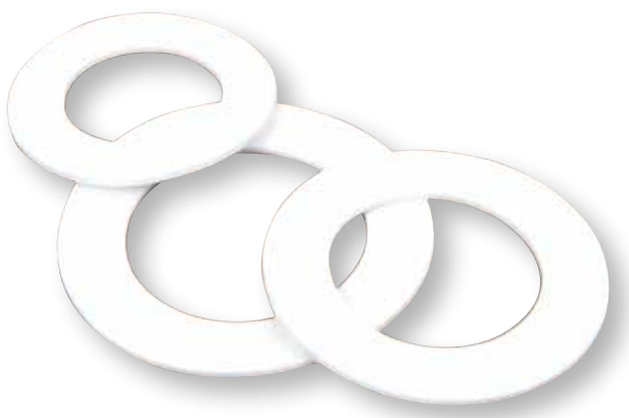
PTFE
SHEET FILM



PTFE sheets are manufactured by pressing and sintering granular resin in a mold. It has excellent physical and chemical properties and offers a wide range of applications between -180°C and 260°C. PTFE can be reinforced with materials such as glass fiber, carbon, graphite, molybdenum disulfide, and bronze to improve its mechanical properties. Alloy materials enhance PTFE's mechanical strength, stability, and wear resistance, while not adversely affecting its other properties. It boasts advantages such as resistance to chemical corrosion, weather resistance, excellent dielectric properties, high lubricity, non-stick nature, and durability against damage.

Application Areas

It has a wide range of applications between -180 °C and 260 °C. It is commonly used in cable manufacturing for aviation and computer technologies, in fuel and hydraulic lines due to its very low fluid resistance, in shafts due to low friction resistance, in the production of gaskets and seals used in pumps and valves, and in the manufacture of gear-like parts due to its non-stick property.



PTFE Sheet Standard Dimensions	Thickness (mm)	Width x Length (m)
	0.5, 1, 1.5, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30, 40, 50	Sheet: 1x1 Roll: Width: 1 – 1.2 – 1.5 / Length: 20 – 30

Average Weight per Square Meter of Standard Sizes															
Thickness (mm)	0,50	1	1,50	2	3	4	5	10	12	15	20	25	30	40	50
Kg./m²	1,15	2,3	3,45	4,6	6,9	9,2	11,5	23	27,6	34,5	46	57,5	69	92	115

Meter / weights may vary.

PTFE ROD

PTFE BLOCK



Although PTFE rod is mostly used in its pure form (virgin, A grade), it is also utilized with PTFE+25% GF, PTFE+30% GF, PTFE+SiO_2, PTFE+Graphite, and PTFE+Carbon composites to particularly enhance its mechanical properties. It is typically available in white or other colors. PTFE offers a broad range of applications between -180 °C and 260 °C. PTFE with glass fiber enhances durability, stability, and wear resistance without negatively affecting its other properties. It has advantages such as chemical corrosion resistance, weather resistance, excellent dielectric properties, high lubricity, non-stickiness, and resistance to damage.

Application Areas

Chemical resistance, corrosion resistance, weather resistance, and good mechanical properties are commonly used in areas where these characteristics are required.

Technical Properties					
Hardness Shore D	Tensile Strength Psi	Break Elongation %	Operating Temperature ^{0}C	Density gr/cm^3	Dielectric Breakdown Strength KV/mm
50-60	3900	150	-180~260	2.1-2.3	10

Average Weight per One Meter of Standard Sizes												
Diameter Ø (mm)	10	12	15	20	22	25	30	35	40	45	50	55
kg/m	0,18	0,27	0,42	0,7	0,85	1,10	1,60	2,18	2,85	3,68	4,45	5,50
Diameter Ø (mm)	60	65	70	75	80	85	90	100	110	120	130	140
kg/m	6,45	7,2	8,9	10	11,4	12,45	14,4	17,8	22	25,85	30	36
Diameter Ø (mm)	150	160	170	180	190	200	220	250				
kg/m	41	46,5	52,65	63	69	72,5	100	112,5				



Meter / weights may vary.

FILLED PTFE ROD

BLOCK



They are manufactured from filled PTFE resin using the molding process. Suspension polymerized PTFE resin is mixed with a wide variety of filler materials. Most commonly used fillers include glass fiber, carbon fiber, bronze, and as lubricants, graphite and molybdenum disulfide. As seen in the technical specification table, the compressive strength and wear resistance of filled PTFE material are higher than those of pure PTFE.

The table provides an overview of the properties of pure and filled PTFE materials. In fact, there are countless combinations of filler materials available, depending on the purpose of use. Among these, glass fiber-filled and carbon fiber-filled alloys are the most widely applied. The reinforcement material should be selected according to the importance of the feature to be highlighted.

Virgin / Filled PTFE Material Specification						
	Criterion	Unit	Test	Virgin PTFE	PTFE + 25% Glass Fiber	PTFE + 25% Carbon Fiber
Mechanical Properties	Density	g/cm³	D792	2.16	2.25	2.08
	Water Absorption, 24 h	%	D570	<0.01	<0.02	<0.05
	Tensile Strength	psi	D638	3,900	2,100	1,900
	Tensile Modulus	psi	D638	80,000	-	-
	Elongation at Break	%		300	270	75
	Flexural Strength	psi	D790	No Break	1,950	2.300
	Flexural Modulus	psi	D790	72,000	190,000	160,000
	Compressive Strength	psi	D695	3,500	1,000	1,700
	Compressive Modulus	psi	D695	70,000	110,000	87,000
	Hardness	Shore D	D785	50	60	62
	Izod Notched Impact	ft-lb/in.	D256	3.5	-	-
Thermal Properties	Coefficient of Linear Thermal Expansion	X 10-5 in./ in./°F	D696	7.5	6.4	6
	Heat Deflection Temperature	at 264 psi °F/°C	D648	132/55	150/65	150/65
	Melting Temperature	°F/°C	D3418	635/335	635/335	635/335
	Operating Temperature	°F/°C	-	500/260	500/260	500/260
	Thermal Conductivity (BTU-in/ft2-hr-°F x 10-4 cal/cm-sec-°C)		C177		1.70 5.86	4.5 15.5
	Flammability Rating	-	UL94	V-0	V-0	V-0
Electrical Properties	Dielectric Strength (V-mil, short time, 1/8" thick)		D149	285	-	-
	Dielectric Constant	1 MHz	D150	2.1	2.4	
	Dissipation Factor	1 MHz	D150	<0.0002	<0.05	
	Volume Resistivity	(ohm-cm) @ 50% RH	D257	>1018	>1015	104

The information provided here is a compilation of publicly available data. It is offered for comparison purposes only and is not guaranteed to be absolute or definitive. Furthermore, no responsibility is accepted for any errors, inaccuracies, or omissions contained herein.

ADHESIVE PTFE GASKET

PTFE TAPE



One side is a self-adhesive expanded pure PTFE adhesive gasket, in the form of a strip that can be used on all types of flanges. With excellent corrosion resistance, it can be used for all types of fluid sealing. It has good high pressure resistance, softness, and elongation properties. It fits perfectly on rough, scratched, pitted, and damaged surfaces. It is an excellent gasket especially for flange connections such as plastic and glass that need to be exposed to low surface pressure.

The peelable film adhesive makes it very easy to mount this gasket on horizontal and vertical surfaces.

Application Areas

- Flange
- Compressor
- Water drains
- Compensators
- Pump bodies
- Manhole covers
- Air inlets
- Heat exchangers

Technical Properties			
Pressure Kgf./cm²		Operating Temperature °C	Standard Roll Length mm
Fluid	Gas		
200	140	-240 ~ 260	10 ~ 20
Width x Thickness mm		5x 2, 7x2.5, 10x3, 12x4, 14x5, 14x2, 17x6, 20x7, 25x5, 30x5	

PTFE CORD

Expanded PTFE cord is made from 100% pure PTFE. It does not contain any recycled material.

Application Areas

Used in the chemical industry, pharmaceutical industry, and food processing plants for the sealing of valve stems and flanges. With this material, the sealing of flanges, pipe connections, hydraulic and pneumatic systems can be achieved easily and securely. In addition, it is a suitable material for glass, plastic flanges, special-shaped equipment, and vehicle applications.



- Acid, alkali, solutions, gas, etc.
- It is an ideal material for surface sealing in particular
- Ensure that the surfaces to be applied are clean, with particular attention to the absence of graphite contamination
- Trouble-free long service life
- Minimal shaft wear and leakage
- Time and cost savings

Technical Properties					
Operating Temperature	Operating Pressure	Shaft Speed	pH Value	Thickness	Density
-150 ~ 260 °C	100 bar	100 m/s	0 - 14	5 - 18 mm	0.7 – 0.8 gr/cm³

Average Weight per One Meter of Standard Sizes					
Diameter Ø mm	3	3,2	4	5	6
g/m	18	21	30	38	45

Meter / weights may vary.

FROM THE FACTORY...

PRODUCTION DEPARTMENT and WAREHOUSE







INSULATION CORK SHEETS

NORMAL CORK SHEET / GENERAL FEATURES



Duplas Inc., our country's first and only cork processing company, has processed the marvel of nature, cork, with high technology to offer DUCORK RLU - IML, a high-performance sound and thermal insulation material, for use in the construction sector. The 100% natural nature of DUCORK RLU - IML and its lack of carcinogenic content have been proven through tests. The product shows an 88% recovery rate at 50% compression and is much more resistant to chemicals compared to other insulation materials. DUCORK RLU - IML simultaneously provides both thermal and sound insulation, highlighting its difference from other insulation materials. Thanks to this feature, it does not require any additional products, significantly reducing costs. It demonstrates high performance in preventing footstep sounds and cold from the ground in floor coverings. It is resistant to moisture and mold. It does not harbor bacteria, insects, fungi, or similar organisms. Its flexible structure absorbs impacts, preventing permanent deformations. Its lifespan is equivalent to the lifespan of the building.

Application Areas

- Residential Buildings
- Commercial Buildings
- Cinema Halls
- Conference Halls
- Hospitals

and similar buildings can be used under the flooring.

Physical Properties	Unit	Value	Standard
Specific Weight	kg/m^2	1,5	ISO 7322
Permanent Deformation	%	7	ISO 7322
Tensile Strength	kgf/cm^2	3,12	ISO 7322
Compression	kgf/cm^2	1,7	ISO 7322
Recovery	%	88	ISO 7322
Hardness	shore	30/50	ISO 7322
Density	kg/m^3	180/200	ISO 7322
Fire Classification		Sınıf : E	ISO 13501

Thermal Properties	Unit	Value	Standard
Thermal Conductivity	W/mK	0,044	ISO 8301
Thermal Resistance	m2K/W	0,0113	ISO 1183

Acoustic Properties	Unit	Value	Standard
Impact Insulation Class (IIC) (Concrete floor)	dB	53	ASTM E492-04
Impact Insulation Class (IIC) (Wood floor)	dB	51	ASTM E413-04
Sound Transmission Class (STC)	dB	55	ASTM E90-04

INSULATION and VIBRATION RUBBER-COATED CORK SHEET

CORK RUBBER SHEET

DUPLAS A.Ş., our country's first and only cork producer, has introduced DUCORK IKM & VKM products, excellent for Sound, Vibration, and seal materials, to the construction sector under the registered brand name DUCORK. They combine the natural wonder product, cork, with the latest technology and natural rubber. DUCORK IKM & VKM products are used in thinner sections compared to alternative Sound, Vibration, and seal products and do not require any additional by-products. This significantly reduces costs. DUCORK products are 100% natural and free from carcinogenic substances. The products demonstrate 95% recovery at 50% compression and offer much greater resistance to chemicals than other insulation materials. Another typical feature of the product is its resistance to fungi and insects, making it resistant to mold formation. The lifespan of DUCORK IKM & VKM is equivalent to that of your building. Tests have proven that DUCORK IKM & VKM do not ignite in fire. They prevent noise from passing into neighboring environments. Additionally, it is an excellent choice for seals. With its excellent oil resistance properties, it is an indispensable material for the automotive industry.



Application Areas

- In vibration isolations
- In inter-floor sound insulations
- In subfloor applications under concrete floors
- In sound and vibration isolation
- In applications under parquet and laminate (In wall and ceiling isolations)
- In all structures where sound must not pass from one area to another.

Physical Properties	Unit	Value	Standard
Specific Weight	kg/m²	1,5	ISO 7322
Permanent Deformation	%	4	ISO 7322
Tensile Strength	kgf/cm²	4,5	ISO 7322
Compression	kgf/cm²	1,04	ISO 7322
Recovery	%	95	ISO 7322
Hardness	shore	50/70	ISO 7322
Density	kg/m³	550/650	ISO 7322
Fire Classification		Class: E	ISO 13501

Thermal Properties	Unit	Value	Standard
Thermal Conductivity	W/mK	0,077	ISO 8301
Thermal Resistance	m2K/W	0,065	ISO 1183

Acoustic Properties	Unit	Value	Standard
Impact Insulation Class (IIC) (Concrete floor)	dB	59	ASTM E492-04
Impact Insulation Class (IIC) (Wood floor)	dB	56	ASTM E413-04
Sound Transmission Class (STC)	dB	55	ASTM E90-04

INSULATION and VIBRATION RUBBER-COATED CORK SHEET

RED RUBBER CORK SHEET



Sound Insulation: IKM

Depending on the condition of the surface (wall and ceiling), this material is also applied using the DUCORK IKM adhesive method. If the surface to be adhered to is not smooth, any type of tile adhesive and external wall insulation plaster can be used, whereas if the surface is smooth, solvent-based adhesives should be used. DUCORK IKM panels must be placed without leaving any gaps. Once the adhesive process of the material is completed, plaster, reinforced plaster mesh, and regular plaster application can be easily applied on top. To achieve sound insulation, materials that create sound bridges such as nails, dowels, and screws must not be used.

Vibration Insulation: VKM

At the foundations of machines such as generators, compressors, alternators, hydrofoils, or textiles that produce vibration noise;

- In large business centers
- In tourist facilities
- In hospitals
- and similar buildings, it is used in service floors. The purpose is to absorb the vibration noise and ensure that buildings are insulated from these vibrations.

Application Areas

- The area where the machine will be placed is determined, and a concrete pool is prepared.
- A vibration plate is calculated and placed at the appropriate thickness on top of this.
- A concrete base is placed on top, and the machine is mounted on this concrete base.

Impact Sound Insulation: IKM / VKM

In the general application of DUCORK IKM / VKM, panels are placed before pouring the leveling concrete on the floor. It is not necessary to glue all surfaces of the panels. Instead, after the panels are positioned without any gaps between them, they are spot-glued. In addition, a panel of 10 cm height is placed at the base of the walls. After the placement of the panels, pouring the leveling concrete insulates both the floor and the side walls from noise and impact sounds.

ROLLED CORK MAT and CORK INSULATION SHEET

ROLL CORK SHEET / GENERAL FEATURES

Sound and Thermal Insulation: RLU - IML

DUCORK RLU - IML is applied using the adhering method according to the condition of the surface to be applied (walls and ceilings). If the surface to be adhered is not smooth, it can be applied with any type of tile adhesive and external plaster. If the surface is smooth, it is applied with solvent-based adhesives. DUCORK RLU - IML panels are placed in such a way that no gaps remain. After the adhesive process of the material is completed, plaster, together with plaster mesh, or regular plaster can be easily applied on top. For sound insulation, materials that create a sound bridge such as nails, plugs, and screws must not be used.

Impact Sound Insulation: RLU - IML

In the general application of RLU - IML, the material is placed without leaving gaps between pieces and adhered at points before the leveling concrete is poured onto the flooring. Additionally, a board with a height of 10 cm is placed at the base of the walls. After placing the rolls, pouring the leveling concrete results in both the flooring and side walls being insulated from noise and impact sounds.

Floor Applications: RLU - IML

Cork underlayment can be easily used in almost all flooring types. It performs exceptionally well in sound and heat insulation compared to other products, depending on the type of flooring. Cork underlayment protects the flooring material against moisture, pests, mold, impacts, and bacteria, regardless of the type of flooring preferred. Additionally, it prevents static electricity buildup. The recommended thickness of cork underlayment is between 2-6 mm, depending on the type of flooring and the area of use. Its application is extremely simple.

Cork Underlay: Recommended Floor Types for Use

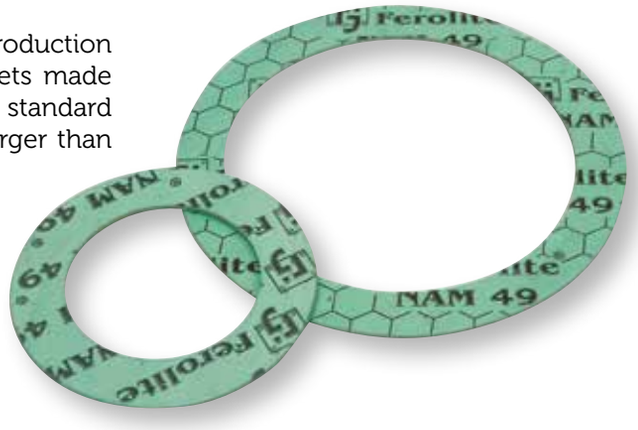
- Laminated flooring
- Engineered wood flooring
- Solid wood flooring
- Linoleum
- Vinyl
- PVC
- Carpet
- Ceramic
- Marble
- Natural stone
- Under screed



INDUSTRIAL GASKETS

VALVE AND FLANGE GASKETS

Valve and flange gaskets are manufactured in our own production facilities in accordance with international standards. Gaskets made from the materials featured in our catalog are available in standard sizes (15 ~ 1000 mm) and in non-standard special sizes larger than these dimensions.



Application Areas

- Food
- Shipbuilding
- Chemical industry
- Fluid and hot water installations
- Used in all sectors where sealing is necessary under high pressure.

Gasket Dimensions
DIN 2690

DN	d1	PN 10	PN 16	PN 25	PN 40
		d2			
10	18	45	45	45	45
15	22	50	50	50	50
20	28	60	60	60	60
25	35	70	70	70	70
32	43	82	82	82	82
40	49	92	92	92	92
50	61	107	107	107	107
65	77	127	127	127	127
80	90	142	142	142	142
100	115	162	162	168	168
125	141	192	192	195	195
150	169	218	218	225	225
175	195	248	248	255	267
200	220	273	273	285	292
250	274	328	330	342	353
300	325	378	385	402	418
350	368	438	445	458	475
400	420	490	497	515	547
450	470	540	557	565	572
500	520	595	618	625	628
600	620	695	735	730	745
700	720	810	805	830	850
800	820	915	910	940	970
900	920	1015	1010	1040	1080
1000	1020	1120	1125	1150	1190
1200	1220	1340	1340	1360	1395
1400	1420	1545	1540	1575	1615
1600	1620	1770	1760	1795	1830

Gasket Dimensions
ASME B 16-21

Nominal Pipe Size		Gasket Inner Diameter Ø	Gasket Outer Diameter Ø Pressure Class (lb)				
DN	Inch		#150	#300	#400	#600	#900
15	1/2	21	48	54	54	54	64
20	3/4	27	57	67	67	67	70
25	1	33	67	73	73	73	79
32	1 1/4	42	76	83	83	83	89
40	1 1/2	48	86	95	95	95	98
50	2	60	105	111	111	111	143
65	2 1/2	73	124	130	130	130	165
80	3	89	137	149	149	149	168
90	3 1/2	102	162	165	162	162	-
100	4	114	175	181	178	194	206
125	5	141	197	216	213	241	248
150	6	168	222	251	248	267	289
200	8	219	279	308	305	321	359
250	10	273	340	362	359	400	435
300	12	324	410	422	419	457	498
350	14	356	451	486	483	492	521
400	16	406	514	540	537	565	575
450	18	457	549	597	594	613	638
500	20	508	606	654	648	683	699
600	24	610	718	775	768	791	838



INDUSTRIAL GASKETS

SPIRAL WOUND GASKETS

Spiral wound steel gaskets are frequently used in environments where pressure and temperature are high. Depending on the working conditions, they are manufactured using different windings (304SS, 316SS, 316L, etc.) and filler materials (PTFE, Pure Graphite, etc.). Depending on the place of use and pressure limits, they are produced in a winding form only (without inner and outer rings), with an inner ring, and with both inner and outer rings.

The most commonly used types, featuring 304SS winding material, special painted carbon steel outer rings, and pure graphite filler, are kept in stock up to sizes of 12" and DN300 in both DIN (as PN16 and PN40) and ANSI standards (as 150lb and 300lb). Requests for gaskets in all other standard or non-standard sizes can be accommodated.



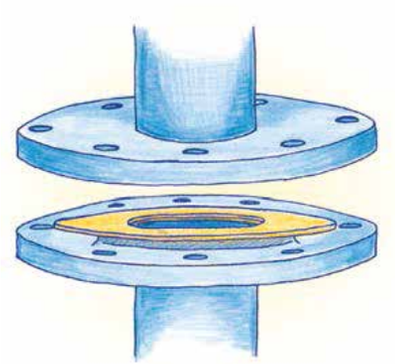


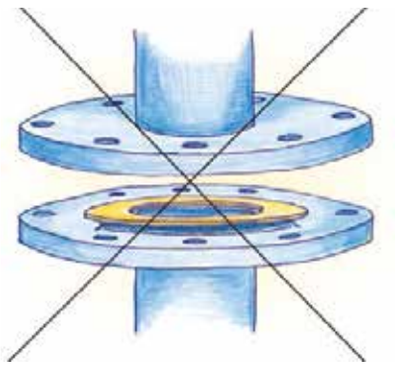
GASKET ASSEMBLY INSTRUCTIONS

1. GASKET SIZE

Correct Size

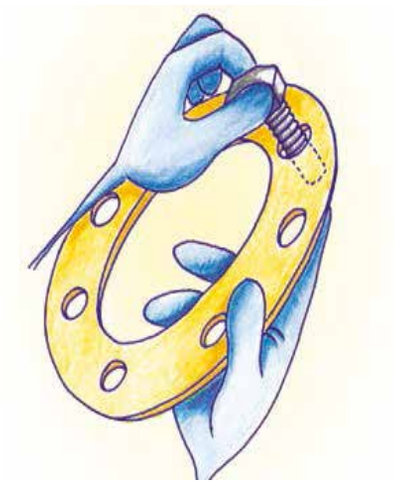
- The gasket must be the correct size.





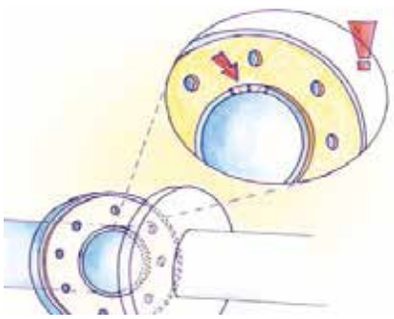
Bolt Holes

- To facilitate alignment, cut the bolt holes slightly larger.



Gasket Inner Diameter

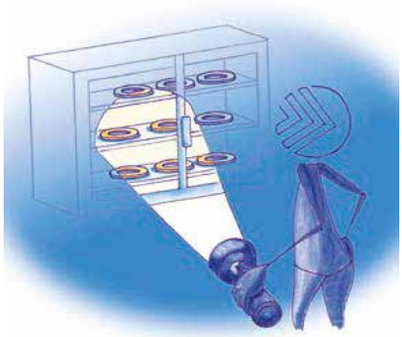
- The inner diameter of the gasket must not be smaller than the inner diameter of the flange.



2. PROTECTION

Ideal Protection Conditions

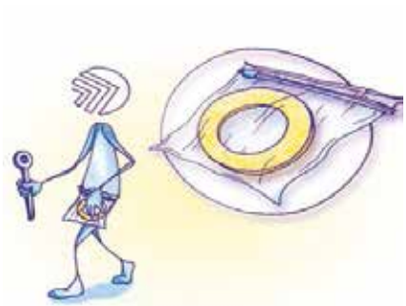
- Gaskets should be stored horizontally to avoid stress and permanent deformation.
- Ideal storage conditions:
  1. Temperature: < 25°C
  2. Humidity: 50 - 60%
  3. Dark room
- Preferably store in clean environments within plastic bags.



3. TRANSPORTATION, INSTALLATION

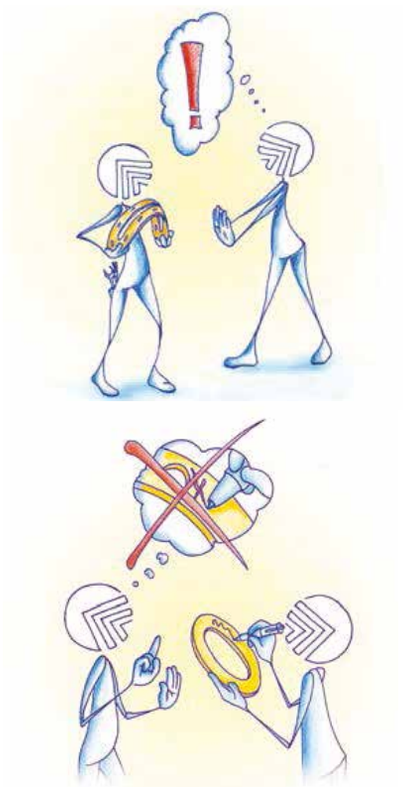
Protect the Gasket

- All types of gaskets (metallic, PTFE, fiber reinforced) must be safeguarded and used with the same care and attention.
- Avoid carrying small gaskets in your pocket to prevent damage.
- Carefully transport pre-cut gaskets. It is best to transport them within protective sleeves.



Protect Gasket Surfaces

- Do not bend the gasket or damage its surface.



GASKET ASSEMBLY INSTRUCTIONS

4. BOLT, NUT, WASHER

Bolt Features

- Ensure the use of bolts compatible with the flange.
- Check if the bolts are suitable for the operating temperature.
- Tighten the bolts reciprocally with appropriate torque.
- Ensure the bolts are not corroded as corrosion negatively impacts their function.
- Never reuse old bolts.

Nut Features

- Use a nut with a yield strength 20% higher than the breaking strength of the bolt.
- Use standard thread bolts instead of fine thread.
- Use the correct lubricant.

Washer

- The washer and nut material should be of the same material as the bolt.
- Use washers in the following cases:

  1. For slotted or larger holes,

  2. To evenly distribute load among fasteners,

  3. To alleviate material fatigue issues by distributing the load applied by the bolt to the connection.

5. GASKET INSTALLATION

Tools

- First, ensure you have the following tools in good condition:

  1. A gasket suitable for your application,

  2. A calibrated torque wrench,

  3. Wire brush

  4. Lubricating oil for bolts.

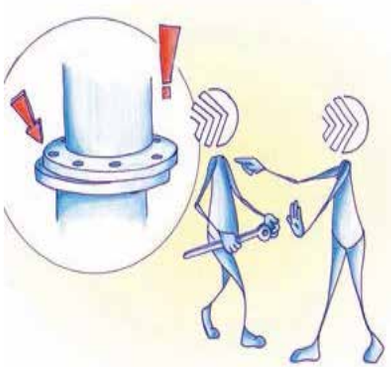
Cleaning Flange Surfaces

- Ensure flange surfaces are clean,
- Check flange and bolt surfaces; ensure they are technically appropriate and free of significant damage.
- Use a brass punch to avoid damaging flange surfaces.



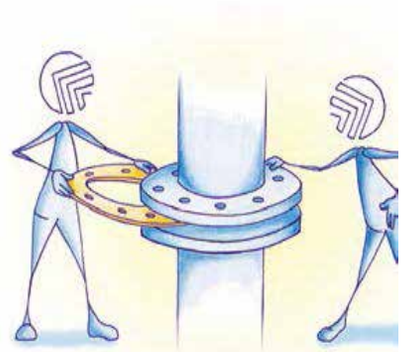
Flange Condition

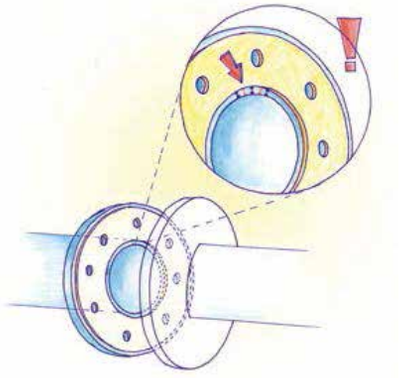
- Ensure flanges are parallel and report any discrepancies.



Key Considerations for Gaskets

- The gasket should be carefully placed between the two flanges.
- The gasket should be centered between the flanges.
- The gasket should be dry.
- When flanges are brought face to face, the gasket should not be crushed or damaged in any other way.





GASKET ASSEMBLY INSTRUCTIONS

Lubricating Bolts

- Lubricate bolt and nut threads and nut surfaces to reduce friction when tightening nuts.
- Ensure that the lubricating oil does not contaminate gasket and flange surfaces.
- The recommended lubricating oil's service temperature should be within the limits of the installation's service temperature.



Tightening Bolts

- Determine suitable torque.
- Perform tightening in four stages with suitable torque as follows:

  a. Tighten the nut by hand,

  b. Tighten to 30% of the torque,

  c. Tighten to 60% of the torque,

  d. Tighten to full torque.

  e. Finally, carry out an additional check tightening in a clockwise direction.

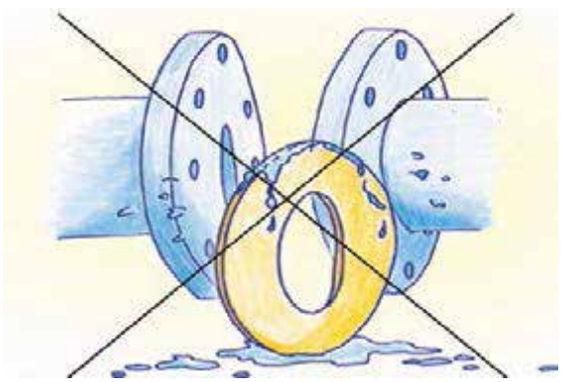


Re-tightening

- When re-tightening is deemed necessary, it should be performed at ambient temperature during or prior to the initial operation.
- Never perform re-tightening at high temperatures and longer operating durations on compressed fiber-reinforced gaskets.



- For safety reasons, never reuse gaskets.
- Consider that the cost of a new gasket is negligible when compared to the potential damage arising from reusing an old gasket.





FROM THE FACTORY





FROM THE FACTORY







NOTES



THREE S
SEALING

3S SEALING

MACHINE INDUSTRY AND TRADE INC.

KLINGRIT - CORK - RUBBER - CERAMIC SHEET - PTFE

GASKET AND GASKET VARIETIES WHOLESALE MANUFACTURING - EXPORT

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