

# SALMARCON®

We make it seal!

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SOFT SEALING  
SOLUTIONS



TRUSTED TO  
**DELIVER**  
INNOVATIVE  
**SOLUTIONS**



GASKET  
SHEETS



RUBBER  
PRODUCTS

[www.salmarcon.com](http://www.salmarcon.com)

## About Salmarcon

Established in 2012, as a private owned company, we since have proved to be a succesful growing story. We are specialist in the manufacturing and supply of high-quality industrial sealing products, fluid control, gaskets, fasteners such as stud bolts, nuts, washers and associated services in Turkey. We are more than 50 employees working together in a 15.000m<sup>2</sup> active area located in Canakkale.

### Expert sealing solutions

With a mix of world class products and knowledgeable people we quickly attracted big clients. Ever since we have proven worthy of the trust, and we have turned into one of the top players of the Turkish gasket industry as well as having entered European supply chains.

### Certified quality

Our products deliver proven user safety.

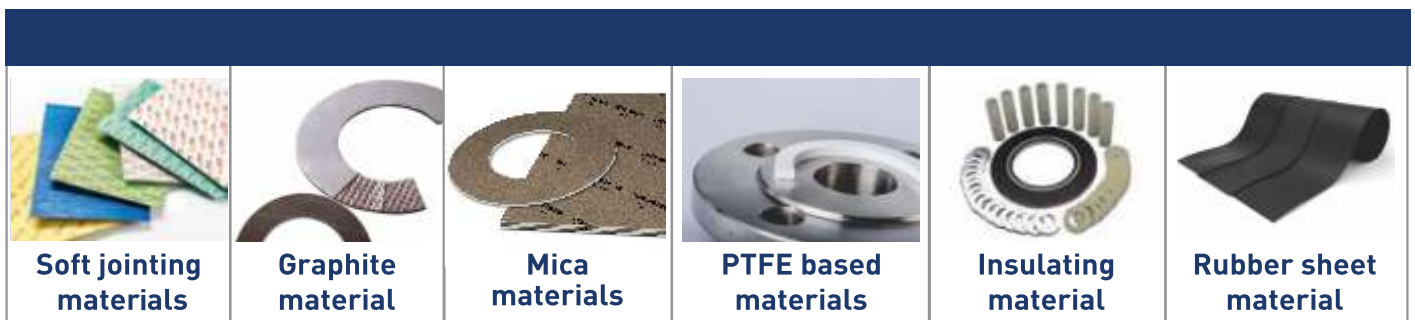
- » Our products are amongst the most approved and certified products within the industry
- » We deliver certified and trusted products worldwide
- » EN ISO 9001:2015, ISO 14001:2015 as well as ISO 45001:2018 certified
- » Best in market certificates & approvals for all our material.

### On time delivery

For us one of the keys to maintaining good customer relationships, is through consistent communication and on-time delivery. Delivering on-time and in-full requires attention to detail through each stage of the production process. Leading into the service of creating a security stock for our customers – This meaning as we are flexible to assure 24/7 urgency service and regular fast supply.

### The unique Salmarcon soft product range

From the leading manufacturing companies within the gasket and sealing industry we quickly became a trusted partner. Our portfolio is built on a range of unique products and solutions fitting the specific needs of our customers.



## Our solutions for all applications



Pipes & Flanges



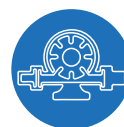
Scrubbers



Heat Exchangers



Food Reactors



Pumps



Compressors



Gas heaters



Steam



Oil + Gas



Chemical



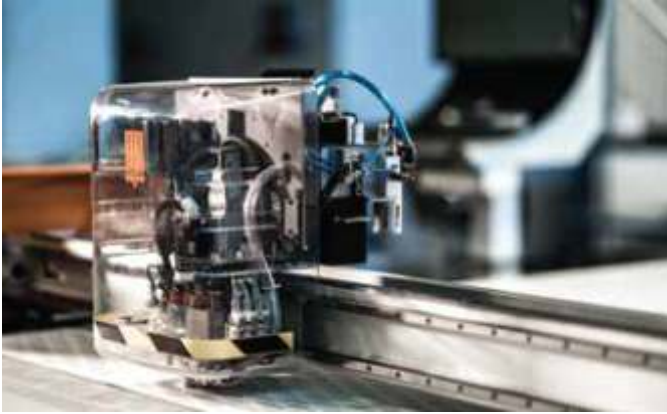
Mining



Petro chemical

## Manufacturing capabilities

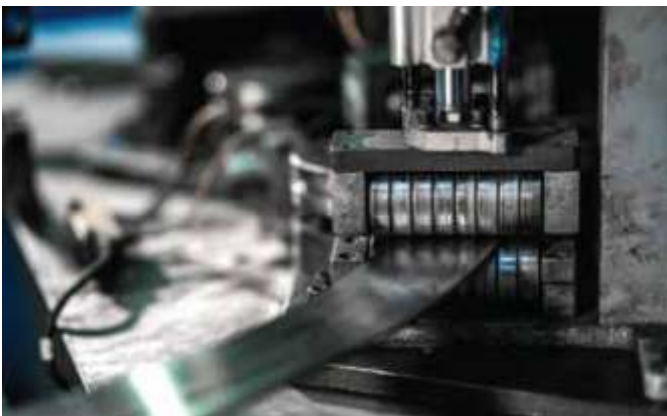
We are located a little south of Istanbul in an area Canakkale. Our manufacturing area is currently covering 15.000m<sup>2</sup>. To assure top-quality gasket products we constant expand our capabilities and stream our processes to assure immediate reactions.



- » Atom cutter
- » Laser cutting
- » Semi-Automatic Semi-metal production line
- » Powder painting and polishing line
- » Expansion of our welding line
- » Bending line
- » Laser marking and quality control extension



- » Water jet
- » CNC Flash cutters
- » Automatic Spiral wound
- » Camm-profiles and Metal jacket production set
- » A range of welding lines
- » Milling line
- » Eccentric presses
- » Automatic robot welding machine



Our plant is set up by learning from the actual market demands.

We listen to the needs of our customers, and those wishing to become our customer, as well as we are putting a great focus on education of our people. This combination is assuring we always can offer the highest quality of precisely produced products.

# KLINGER® soft jointing materials

KLINGER® is our range of calendered rubber based high performance sealing materials. Depending on the specific requirements, it provides excellent resistances (e.g. temperature, mechanical or chemical resistance) in the areas required by the corresponding target industry. Furthermore, KLINGERSIL® is easy to cut, handle and fit.

**Sizes:**

1500 x 1500 mm,  
2000 x 1500 mm

**Thickness:**





(according to DIN 28091-1):  
0.5 mm, 1.0 mm, 1.5 mm,  
2.0 mm, 3.0 mm

**Tolerances:**

Length: ± 50 mm  
Width: ± 50 mm

**Material advantages:**

		
Asbestos-free	Easy to cut, handle & fit	Free of organic fibers & fillers
		
Chemical resistance	Oxidation and corrosion free	Anti-stick material

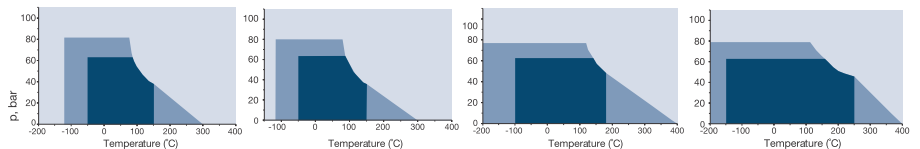
	C-4300	C-4324	C-4400	C-4430
				
<b>Basis composition</b>	Aramid fibers bonded with NBR.	High-performance fibers, bonded with NBR.	Aramid fibers bonded with NBR.	Optimum combination of synthetic fibers bonded with NBR.
<b>Key features</b>	Universal high-pressure material resistant to hot water, steam, oils, hydrocarbons and other chemicals. Broad application range.	Universal high-pressure gasket material used in liquid and steam applications at lower pressures and temperatures.	Universal gasket material and a synonym for safe and reliable sealing. Its unique matrix makes it resistant to virtually any medium.	Offering excellent stress relaxation, this gasket material is used in hot water and higher-temperature steam applications.
<b>Industry</b>	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Refrigeration.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage.
<b>Certificates &amp; Approvals</b>	DIN-DVGW, DIN-DVGW W 270, Elastomer-Guideline, DNV GL approval, SVGW approval.	DIN-DVGW, Elastomer-Guideline, WRAS approval, DNV GL approval, SVGW approval	BAM-tested, DIN-DVGW, DIN-DVGW W 270, DVGW VP 401, Elastomer-Guideline, ÖVGW, DNV GL, TA-Luft (Clean air), Fire-Safe acc. to DIN EN ISO 10497.	BAM-tested, DIN-DVGW, DIN-DVGW W 270, DVGW VP 401, Elastomer-Guideline, WRAS, DNV GL, TA-Luft (Clean air), Fire-Safe acc. to DIN EN ISO 10497, Fire-Safe acc. to ISO 19921.

**TECHNICAL DATA** Typical values for a thickness of 2.0 mm

Compressibility	ASTM F 36 J	%	11	10	11	9
Recovery	ASTM F 36 J	%	60	55	55	55
Stress relaxation DIN 52913	50 Mpa, 16 h/175°C	Mpa	38	31	37	39
	50 Mpa, 16 h/300°C	Mpa	30	20	25	35
Stress relaxation BS 7531	40 Mpa, 16 h/300°C	Mpa	30	23	25	31
KLINGER cold/hot compression 50 MPa	thickness decrease at 23°C	%	10	10	10	8
	thickness decrease at 300°C	%	15	25	20	11
Tightness	DIN 28090-2	mg/(s x m)	0.05	0.03	0.02	0.05
Specific leakrate	VDI 2440	mbar x l/(s x m)	4.94E-08		1.64E-08	2.13E-06
Thickness increase after fluid immersion ASTM F 146	oil IRM 903: 5 h/150°C	%	3	5	3	3
	fuel B: 5 h/23°C	%	5	10	5	5
Density		g/cm³	1.6	1.85	1.6	1.8
Average surface resistance	pO	Ω	8.0x10E12	1.04x10E13	1.4x10E12	4.1x10E13
Average specific volume resistance	pD	Ω cm	0.43	4.3x10E11	1.2x10E12	4.5x10E13
Average dielectric strength	Ed	kV/mm		12	21.6	21.3
Average dielectric coefficient	εr			9	9.2	6.7
Thermal conductivity	λ	W/mK		0.50	0.42	0.38
Classification acc. to BS 7531:2006	Grade Y				0.42	
ASME-Code sealing factors						
for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	Mpa	205	y15	y15	y20
			m 1.6	m 2.6	m 1.6	m 1.6

The area of the **P-T diagram**

- In area one, the gasket material is normally suitable subject to chemical compatibility.
- In area two, the gasket material may be suitable but a technical evaluation is recommended.
- In area three, do not install the gasket without a technical evaluation. Always refer to the chemical resistance of the gasket to the media.





# KLINGER® soft jointing materials

**Sizes:**

1500 x 1500 mm,  
2000 x 1500 mm

**Thickness:**

(according to DIN 28091-1):  
0.5 mm, 1.0 mm, 1.5 mm,  
2.0 mm, 3.0 mm

**Tolerances:**

Length: ± 50 mm  
Width: ± 50 mm

**C-4430plus**



**C-4500**



**C-8200**



**Quantum**



<b>Basis composition</b>	Optimum combination of synthetic fibers bonded with NBR.	Carbon fibers & special heat-resistant additives bonded with NBR.	Glass fibers bonded with special acid resistant elastomers.	Synthetic fibres bonded with HNBR.
<b>Key features</b>	This material provides industry-leading stress relaxation and outstanding resistance to hot water and steam at higher temperatures.	This superior-performance gasket material has been designed specifically for the chemical industry. Broad medium	This premium high-pressure gasket primarily used in tandem with highly concentrated acids. Wide media resistance & versatility.	High-quality fiber and filler compounds bonded in an HNBR matrix ensures greatest flexibility at high temperatures.
<b>Industry</b>	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage.	General industry, Chemical, Oil & Gas, Energy, Pulp & Paper.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Pharma
<b>Certificates &amp; Approvals</b>	BAM-tested, DIN-DVGW, DIN-DVGW W 270, Elastomer-Guideline, WRAS approval, TA-Luft (Clean air), Fire-Safe acc. to DIN EN ISO 10497.	BAM-tested, DIN-DVGW, DIN-DVGW W 270, Elastomer-Guideline, ÖVGW, DNV GL approval, TA-Luft (Clean air), Fire-Safe acc. to DIN EN ISO 10497.	German Lloyd, TA-Luft (Clean air).	BAM-tested, DIN-DVGW, TA-Luft (Clean air), Fire-Safe acc. DIN EN ISO 10497, FDA conformity.

**Material advantages:**

Asbestos-free

Easy to cut, handle & fit

Free of organic fibers & fillers

Chemical resistance

Oxidation and corrosion free

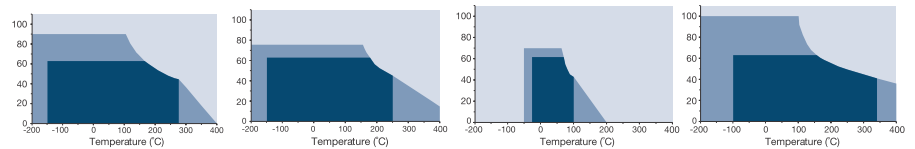
Anti-stick material

**TECHNICAL DATA** Typical values for a thickness of 2.0 mm

Compressibility	ASTM F 36 J	%	9	25	9	10
Recovery	ASTM F 36 J	%	55	45	55	60
Stress relaxation DIN 52913	50 Mpa, 16 h/175°C	Mpa	39	25		32
	50 Mpa, 16 h/300°C	Mpa	35			30
Stress relaxation BS 7531	40 Mpa, 16 h/300°C	Mpa	31			29
KLINGER cold/hot compression 50 MPa	thickness decrease at 23°C	%	8	20	7	10
	thickness decrease at 300°C	%	11	32	15	14/20
Tightness	DIN 28090-2	mg/(s x m)	0.05	0.02		0.02
Specific leakrate	VDI 2440	mbar x l/(s x m)	2.9E-06		9.17E-09	4.4E-08
Thickness increase after fluid immersion ASTM F 146	oil FM 903: 5 h/150°C	%	3	45	unstable	3
	fuel B: 5 h/23°C	%	5	30	15+Q22:T25	5
Density		g/cm³	1.8	1.7	1.7	1.7
Average surface resistance	pO	Ω	4.1x10E13	4.5x10E14		7.7x10E12
Average specific volume resistance	pD	Ω cm	4.5x10E13	6.8x10E13	4.1x10E12	4.7x10E123
Average dielectric strenght	Ed	kV/mm	21.3	13	17.0	18.5
Average dielectric coefficient	50 Hz	εr	6.7	5.8	9.4	6.8
Thermal conductivity	λ	W/mK	0.38			0.44
Classification acc. to BS 7531:2006	Grade Y					
ASME-Code sealing factors						
for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	Mpa	y20			y15
			m 1.6			m 2.5

The area of the **P-T diagram**

- In area one, the gasket material is normally suitable subject to chemical compatibility.
- In area two, the gasket material may be suitable but a technical evaluation is recommended.
- In area three, do not install the gasket without a technical evaluation. Always refer to the chemical resistance of the gasket to the media.

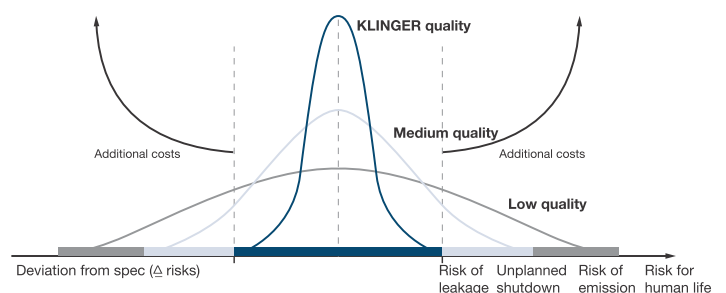


**Choosing KLINGERSIL® will improve Total Cost of Ownership**

Our consistent high quality KLINGERSIL® products assure:

- More safety
- Longer lifetime
- High reliability
- Less downtime
- Less emissions

All leading to an overall lowered usage of resources in any given plant.



# KLINGER® top-chem

KLINGER top-chem range provides the characteristics required by their target industries.

**Sizes:**

1250x1250 mm,  
1500x1500 mm

**Thickness (DIN 28091-1):**

1.0 mm, 1.5 mm,  
2.0 mm, 3.0 mm

**Tolerances:**

Thickness ± 5%  
Length ± 5 mm  
Width ± 5 mm

top-chem 2000      top-chem 2003      top-chem 2005      top-chem 2006      soft-chem

<b>Basis composition</b>	PTFE gasket filled with Silicon carbide.	PTFE filled with hollow glass-microspheres.	PTFE filled with inorganic fillers.	PTFE filled with barium sulfate.	Multi-directional expanded PTFE.
<b>Key features</b>	The only PTFE Fire Safe certificate gasket. Acidic & alkaline resistance and versatility in steam & oxygen.	Ideal material choice for strongly acidic and alkaline applications as well as for medium temperatures and loads.	Material offers a high chemical resistance in acidic applications, making it ideal for the chemical industry.	Great sealing performance at medium to low temperatures. Primarily used in the chemical industry.	Soft-chem's superior sealing capabilities represent the best choice for operating conditions of up to 260 C.
<b>Industry</b>	General, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Pharma.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Pharma.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Pharma.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Pharma.	General industry, Chemical, Oil & Gas, Energy, Infrastructure, Pulp & Paper, Marine, Automotive, Food & Beverage, Pharma.
<b>Certificates &amp; Approvals</b>	DIN-DVGW, DIN-DVGW W 270, KTW-Guideline, WRAS, DNV GL, TA-Luft (Clean air), Fire-Safe acc. to DIN EN ISO 10497, FDA conform., Regulation (EU) No. 1935/2004*.	BAM tested, DIN-DVGW & W 270, KTW-Guideline, DNV GL, TA-Luft (Clean air), FDA conformity (components comply with requirements), Regulation (EU) No. 1935/2004 (incl. 10/2011).	BAM-tested, DIN-DVGW, WRAS, KTW-Guideline, DNV GL, TA-Luft (Clean air), FDA conformity (components comply with requirements), Regulation (EU) No. 1935/2004 (incl. 10/2011).	BAM-tested, DIN-DVGW, DNV GL, TA-Luft (Clean air), FDA Conformity (components comply with the FDA requirements).	Conforms to the regulation (EU) No. 1935/2004 (incl. 10/2011), FDA conformity (components of KLINGER® softchem comply with the FDA requirements).

**Material advantages:**

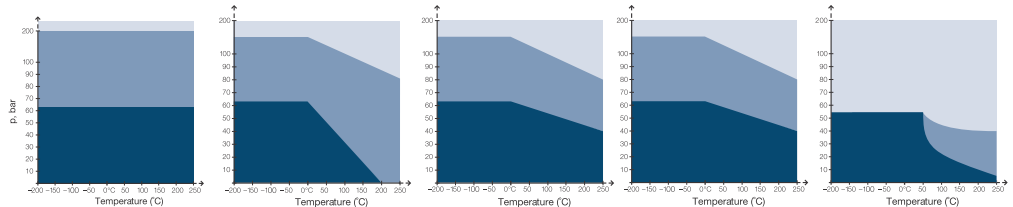
Chemical resistance	Conformable to surface	Hot water usage
Tightness at low load	No longterm embrittlement	Crush resistance

**TECHNICAL DATA** Typical values for a thickness of 2.0 mm

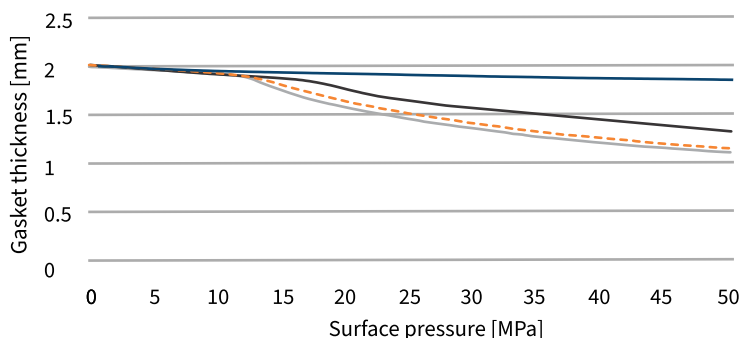
Compressibility	ASTM F 36 M	%	4	18	4	4	55	
Recovery	ASTM F 36 M	%	50	35	40	40	15	
Stress relaxation DIN 52913	30 Mpa, 16 h/150°C	Mpa	28	13	25	18	15	
KLINGER cold/hot compression 50 MPa	thickness decrease at 23°C	%	36	5	10	5	12	35
	thickness decrease at 260°C	%	11	39	35	41	30*	
Tightness	DIN 28090-2	mg/(s x m)	0.08	0.01	0.02	0.01	0.01	
Specific leakrate	VDI 2440	mbar x l/(s x m)	4.46E-06	3.29E-06	8.75E-07	3.60E-06		
Thickness/weight increase	H <sub>2</sub> SO <sub>4</sub> , 100 %/18 h/23°C	%	1/1	1/1	11	-		
	HNO <sub>3</sub> , 100 %/18 h/23°C	%	1/2	1/2	1/2	1/2		
	NaOH, 33 %/72 h/110°C	%	1/3	1/5		1/1		
Density		g/cm <sup>3</sup>	2.5	1.7	2.2	3.0	0.9	
Average surface resistance	pΩ	Ω	6.9x10E12	6.9x10E12	3.1x10E13	1x10E13		
Average specific volume resistance	pD	Ω cm	2.2x10E12	2.2x10E12	3.2x10E13	1.2x10E13		
Average dielectric strength	Ed	kV/mm	3.6	16.7	23.8	16.7		
Average power factor	50 Hz	tan δ	0.166	0.085	0.071	0.083		
Average dielectric coefficient	50 Hz	εr	10.6	2.8	3.2	4.2		
Thermal conductivity	λ	W/mK	0.60	0.18	0.42	0.40		

**The area of the P-T diagram**

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- In area two, the gasket material may be suitable but a technical evaluation is recommended.
- In area three, do not install the gasket without a technical evaluation. Always refer to the chemical resistance of the gasket to the media.



**Intrusion into bore diagram** shows Top-chem outcasts competition gasket materials significantly.



- top-chem 2000
- Competitor A
- Competitor B
- Competitor C

# KLINGER® Mica Materials

Mica gaskets are used in the automotive sector, gas turbines, gas and oil burners, heat exchangers and in other flange connections. Mica gaskets are made from a material which consists of phlogopite mica paper with a silicone binder.

**Sizes:**

1000 x 1200 mm

**Thickness:**

1.3 mm, 2.0 mm, 3.2 mm

**Tolerances:**

Thickness ± 10%

Length ± 5 mm

Width ± 5 mm

**Material advantages:**



Chemical resistance



Conformable to surface



Hot water usage



Tightness at low load



No longterm embrittlement



Crush resistance



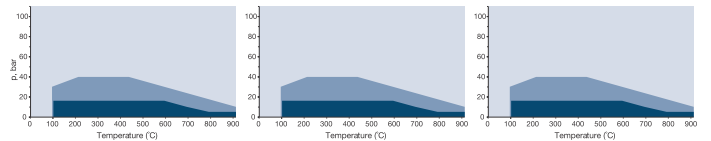
	PSS 130	PSS 200	PSS300
<b>Basis composition</b>	Mica-based with perforated 0.1 mm thick stainless steel reinforcement made of 1.4401 or AISI 316.	Mica-based with perforated 0.1 mm thick stainless steel reinforcement made of 1.4401 or AISI 316.	Mica-based with perforated 0.1 mm thick stainless steel reinforcement made of 1.4401 or AISI 316.
<b>Thickness</b>	1.3 mm	2.0 mm	3.2 mm
<b>Key features</b>	Outstanding gasket material for temperatures up to 900 °C and higher. Minimum weight loss at max. temperature.	Outstanding gasket material for temperatures up to 900 °C and higher. Minimum weight loss at max. temperature.	Outstanding gasket material for temperatures up to 900 °C and higher. Minimum weight loss at max. temperature.
<b>Industry</b>	General industry, Chemical, Oil & Gas, Energy, Pulp & Paper, Marine, Automotive	General industry, Chemical, Oil & Gas, Energy, Pulp & Paper, Marine, Automotive	General industry, Chemical, Oil & Gas, Energy, Pulp & Paper, Marine, Automotive
<b>Certificates &amp; Approvals</b>	Germanischer Lloyd. Please inquire for more info.	Germanischer Lloyd. Please inquire for more info.	Germanischer Lloyd. Please inquire for more info.

**TECHNICAL DATA** Typical values for a thickness of 2.0 mm

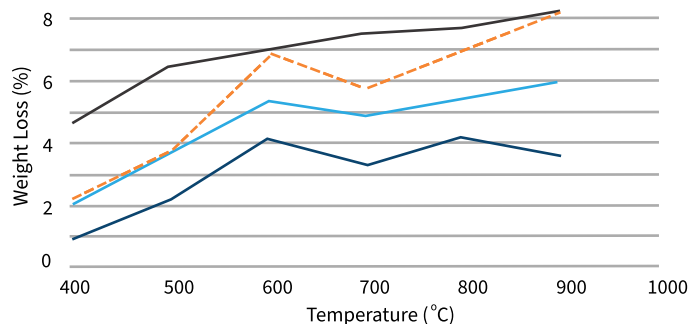
Compressibility ASTM F 36 J	%	15-23	15-23	15-23
Recovery ASTM F 36 J	%	32-42	32-42	32-42
Stress relaxation DIN 52913, 50 MPa, 16 h/300°C	MPa	33	33	33
Ignition loss	%	<5	<5	<5
Sealability for nitrogen at 30 MPa and 6 bar, temperature within 100 to 400°C (Sample size 90 x 50 mm) max	ml/min	0.20	0.20	0.20
Thickness increase ASTM F 146, Oil IRM 903: 5 h/150°C	%	12	12	12
Weight increase ASTM F 146, Oil IRM 903: 5 h/150°C	%	26	26	26
Max. gasket load	MPa	80	80	80
Density	g/cm <sup>3</sup>	2.1	2.1	2.1
Max. temperature	°C	900	900	900
Thickness	mm	2.0	2.0	2.0
Number of stainless steel reinforcements		1	1	1
Material Tanged stainless steel		ASI 316 (L)	ASI 316 (L)	ASI 316 (L)

The area of the **P-T diagram**

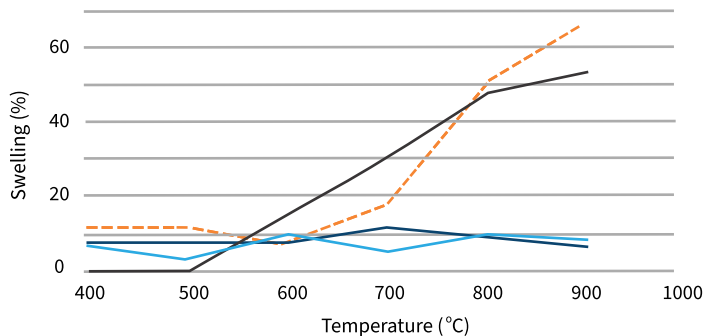
- In area one, the gasket material is normally suitable subject to chemical compatibility.
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- In area three, do not install the gasket without a technical evaluation. Always refer to the chemical resistance of the gasket to the media.



**Weight loss diagram** shows Milam PSS loses much less weight comparing to the competition materials.



**Swelling diagram** shows Milam PSS swells much less than competition whilst preserving very good gasket adhesion.



## Salmarcon Graphite Laminates

Gaskets on the basis of graphite are suitable for temperatures between -200 °C and up to 560 °C, and offer resistance against a broad range of chemicals. Equipped with an anti-stick finish specifically developed for this purpose, Salmarcon graphite-based gasket materials are easy to remove from the flange – even after exposure to elevated temperatures.

### Sizes:

1000 x 1000 mm  
1500 x 1500 mm

### Thickness (DIN 28091-1):

0.5 mm, 0.75 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm and 5.0 mm

### Tolerances:

Thickness ± 5%  
Length ± 50 mm  
Width ± 50 mm

### Material advantages:



Applications up to 460°C



Asbestos-free



Free of organic fibers & fillers



Chemical resistance



Crush resistance



Anti-stick material

### Laminate-SGS0



### Insert-SGS3

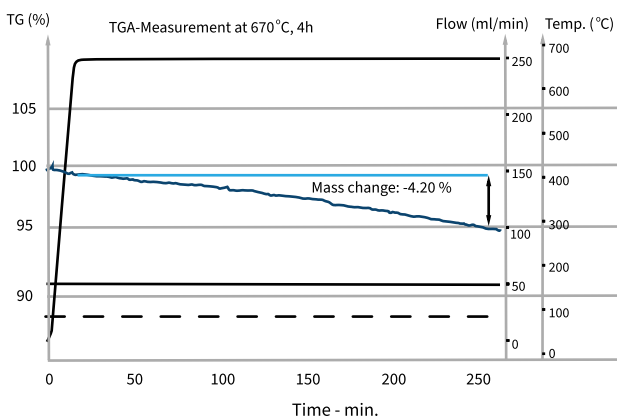


<b>Basis composition</b>	Flexible graphite with fiber-based insert.	Expanded graphite with an 0.1 mm thick tanged stainless steel insert.
<b>Key features</b>	Comprising two layers of flexible graphite & 0.3 mm high-temperature resistant graphite and fiber-based insert, this material combines easy handling with superior long-term sealing performance.	With two layers of graphite and featuring adhesive-free bonding, this gasket material is ideal for hot water and steam applications at temperatures of up to 560 °C.
<b>Industry</b>	General industry, Chemical, Oil & Gas, Energy, Pulp & Paper Transport.	Chemical, Oil & Gas, Energy, Pulp & Paper Transport.
<b>Certificates &amp; Approvals</b>	/	TA-Luft, FIRE SAFE cert.

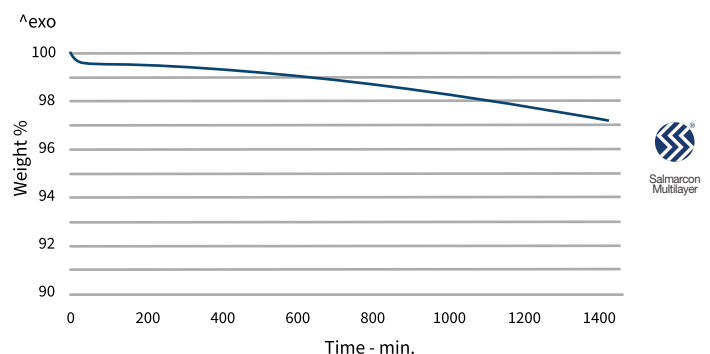
### TECHNICAL DATA Typical values for a thickness of 2.0 mm

Density of the graphite layer	DIN 28090-2	g/cm <sup>3</sup>	1.0	1.0
Purity of graphite	DIN 51903	%	≥ 99	≥ 99
Graphite and fibre based insert / Metallic reinforcement	Plain metal			AISI 316 (L)
	Thickness	mm	/	0.10
	Number of sheets		1	1
Compressibility	ASTM F36 A	%	40	35.45
Recovery	ASTM F36 A	%	14	12-18
Compression creep DIN 52913	16 h/ 50 MPa/ 300°C	MPa	≥ 40	≥ 46
KLINGER cold/hot compression 50 MPa	Thickness decrease at 23°C	%	42	35-45
	Thickness decrease at 300°C	%	10	1-3
Specific leak rate	DIN 28090-2	mg/(s x m)	0.05	< 0.10
Chloride content of graphite layer	DIN 28090-2	ppm	< 40	< 40

**Oxidation diagram** shows Salmarcon multi layered graphite solution superb stability and oxidative resistance in high pressure and temperature applications.



**Weight change diagram** (FSA-G-604-07/B), TGA test method confirmed very low weight changes of flexible graphite during heating under a controlled atmosphere.





## KLINGER® SEALEX

KLINGER® SEALEX is a PTFE product manufactured from a unique, physically networked fibrillated material. It is composed of specially prepared fluorocarbons with excellent resistance to aggressive chemicals as well as offering secure sealing under high pressures, even permitting the use of the material in applications up to 150 bar internal pressure ratings.



KLINGER® SEALEX can be applied to any sealing face, giving excellent sealing performance even at low bolt loads.

**Temperature Limit:** MAX 270° C to 315° C

**Pressure Limit:** Full vacuum to 210 bar

**Chemical Resistance:** pH 0-14 except molten alkali metals and elemental fluorine

### Important approval certifications and tests:

DVGW: Registration No. DG-5127BR0551

BAM / oxygen: Tested for oxygen at 60 bar and 60 °C (not for liquid oxygen)

TA-Luft: tested (at 150 °C)

FDA conform (including adhesives)

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## Rubber products

Rubber sheet based on NBR, CSM Hypalon, EPDM, Viton, NR Gaskets (all high grade) highly resistant to oils at high temperature such as food oil, transformer oil, petrol and so many more.

### Epdm rubber sheets

EPDM or Ethylene Propylene Diene Monomer has an excellent operating temperature range of -45°C to +120°C. It is highly recommended for out-door uses as it is extremely resistant to oxidation, U.V. Rays and Ozone. However, EPDM does not have good oil resistance or adhesion properties. It is resistant to many chemicals and solvents and shows good resistance to many corrosive chemicals. It is also used for roofing sheets and weather strips.

### Nitrile rubber sheets

Nitrile rubber or acrylonitrile butadiene rubber is a copolymer of butadiene and acrylonitrile. It has good general resistance to oil along with good mechanical properties, especially tensile strength, flexing,

compression set and impermeability to gases. It has moderate aging properties and good adhesion to metal. Its recommended operating temperature range is -30° C to +120° C. It also displays a good resistance to inorganic chemical products except antioxidant agents and chlorine. It gives satisfactory resistance to general hydrocarbons. Due to its polar nature, we do not recommend its use with polar liquids like ketones, ethers, and amines.

### Neoprene rubber sheets

CR is a homo-polymer of chloroprene or chlorobutadiene. It has excellent mechanical and good abrasion properties even without reinforcing fillers and has a reasonable resilience in grades over 60° shore A. It displays good resistance to heat, ozone and weathering and gives good adhesion to metal. The recommended operating temperature range is between -40°C to +125°C. It has good resistance to inorganic hydrocarbons. We also offer flame retardant grades.

**RUBBER SHEETS** Physical properties and technical specs

				Basic Polymer	NBR	NR/SBR	HNBR	SBR	FKM	EPDM	CR/SBR	CSM	IIR (Butile)	VMQ (Silicone)
				Application	Oil resistant	Natural rubber	Oil resistant	Industrial	Flourinated	Ethylen-prpylene	Chloroprene	Chlorosulfonated	Butyl	Silicone
				Units of measure	VALUES									
				Specification										
Hardness (H)	+/- 5	Sh.A3	ASTM D 2240	70	45	65	70	75	70	70	70	70	60	60
Tensile Strength (CR)	min.	Mpa	ASTM D 412C	8	10	16	3	6	5	5	8	7	7	
Elongatiuon at break (AR)	min.	%	ASTM D 412C	350	400	300	230	270	250	250	170	4000	300	
Tear strength	min.	N/mm	ASTM D 624B	350	40	40	15	20	15	15	25	15	15	
Abrasion resistance		mm3	DIN 53516											
Specific gravity	+/- 0,03	g/cm	DIN 53479	1,50	1,10	1,18	1,67	1,90	1,33	1,55	1,47	1,35	1,16	
<b>Ageing</b>	<b>ΔH</b>	<b>SH.A3</b>		5	5	5	5	3	8	5			10	
In AIR	ΔCR	%	ASTM D 573	-20	-40	-10	-20	-10	-30	-30	-30		-15	
For 72h	ΔAR	%		-40	-40	-20	-30	-20	-40	-40			-30	
At 180°C	ΔV	%												
<b>Ageing</b>	<b>ΔH</b>	<b>SH.A3</b>												
In OZONE	ΔCR	%	ASTM D 417/ ASTM D 1149											
For 70h	ΔAR	%												
At 30°C - 100 pphm - all. 50	ΔV	%												
<b>Ageing</b>	<b>ΔH</b>	<b>SH.A3</b>		10		10								
In IRM 901	ΔCR	%	ASTM D 417											
For 70h	ΔAR	%												
At 100°C	ΔV	%			-10		-15							
<b>Ageing</b>	<b>ΔH</b>	<b>SH.A3</b>		-10		-10		-10						
In IRM 903	ΔCR	%	ASTM D 417											
For 70h	ΔAR	%												
At 100°C	ΔV	%			10		15		10					
<b>Ageing</b>	<b>ΔH</b>	<b>SH.A3</b>			-5		-6		-6	5				
In Water	ΔCR	%	ASTM D 417											
For 70h	ΔAR	%												
At 100°C	ΔV	%			5		6		5	5				
<b>Working temperatures</b>														
In AIR	°C	ASTM D 573	min	-20	-30	-20	-20	-10	-20	-20	-20	-20	-30	-50
			max	100	70	150	70	200	70	70	120	110	200	
In OIL	°C	ASTM D 471	min											
			max	100		140		150		23	80			
In WATER	°C	ASTM D 471	min											
			max	90	70	100	70	100	80	80	100	100	70	

**MAIN CHARACTERISTICS**

Elasticity	✓	✓✓	✓	•	✗	✓	✓	✓	✓	✗	✓
Compression	✓	✓✓	✓✓	•	✓✓	✓	✓	✓	✓	✓	✓✓
Abrasion	•	✓✓	✓✓	•	•	•	•	•	•	✓✓	✓
Flame	•	•	•	•	✓✓	•	✗	✓	•	•	✓
Fuels	✓	✗	✓	✗	✓✓	✗	•	•	•	•	✗
Ozone	•	•	✓	✗	✓✓	✓	•	✓	•	✓	✓✓

Symbol description: Unsuitable ✗ , Poor • , Good ✓ ,Exellent ✓✓ .

**COMMERCIAL GRADE**

Code	Specific Gravity	Hardness (±5)	Tensile Strength	Elongation at break	Compression Set at 70° C for 22 hrs	Temp. Range
	gm/cm³	Shore A	(min) kg/cm²	(min) %	%	°C
Type EP	1,30	60	80	300	35	-30 to +100
Type EP	1,35	65	60	250	35	-30 to +70
Type EP	1,35	65	70	300	50	-25 to +100

# Industrial Gaskets

## Standard gaskets

The dimensions of our standard gaskets meet the requirements of the EN 1514-1, ANSI B16.21 or other internationally recognized standards. Larger gaskets are assembled from segments. Two kinds of splicing are used: dovetail and beveled).

## Custom Made gaskets

The non-metallic gaskets are produced in several sizes and shapes to meet the most demanding applications. They are available in standard and non-standard gasket design.

## Cutting capabilities

With our technology, experience, and knowledge we can cut almost any material providing competitive pricing and high quality. A large range of presses and special cutting tools together with a CAM-CAD Water Jet and our skilled team are available for the swift production of small quantities.

## Water Jet Cutting

CAM-CAD Water Jet cutter is an excellent system for manufacturing a variety of items, both large, small, simple or complex shapes. The process will leave a smooth finish with no heat affected zones and exceptional two-dimension accuracy.

## Standards for non-metallic flat gaskets

ASME B 16.21 (ASME B 16.47 series A)

NPS (in)	d(mm)		D(mm)				
	Class (lb)	150	300	400	600	900	1500
1/2"	21	48	54	54	54	64	64
3/4"	27	57	67	67	67	70	70
1"	33	67	73	73	73	79	79
1 1/4"	42	76	83	83	83	89	89
1 1/2"	48	86	95	95	95	98	98
2"	60	105	111	111	111	143	143
2 1/2"	73	124	130	130	130	165	165
3"	89	137	149	149	149	168	175
3 1/2"	102	162	165	162	162		
4"	114	175	181	178	194	206	210
5"	141	197	216	213	241	248	254
6"	168	222	251	248	267	289	283
8"	219	279	308	305	321	359	352
10"	273	340	362	359	400	435	435
12"	324	451	422	419	457	498	52
14"	356	45	486	483	492	521	578
16"	406	514	540	537	565	575	641
18"	457	549	59	594	613	638	705
20"	508	660	654	64	683	699	756
22"	559	560	705	702	733		
24"	610	718	775	768	791	838	902
26"	660	775	835	832	867	882.6	
28"	711	832	899	892	914	946.1	
30"	762	883	953	946	972	1010	
32"	813	940	1006	1003	1022	1073	
34"	864	991	1057	1054	1073	1073	
36"	914	1048	1118	1118	1130	1200	
38"	965	1111	1054	1073	1105		
40"	1016	1162	1114	1127	1156		
42"	1067	1219	1165	1178	1219		
44"	1118	1276	1219	1232	1270		
46"	1168	1327	1273	1289	1327		
48"	1219	1384	1324	1346	1391		
50"	1270	1435	1378	1403	1448		
52"	1321	1492	1429	1454	1499		
54"	1372	1549	1492	1518	1556		
56"	1422	1607	1543	1568	1613		
58"	1473	1664	1594	1619	1664		

Flange Standard - EN 1092-1,-2,-3,-4; EN545, EN 598, EN 969

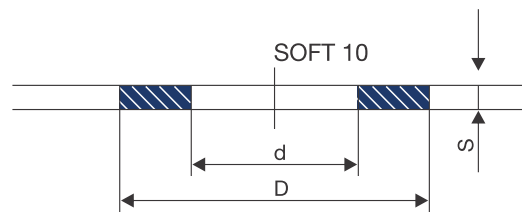
DN (mm)	d(mm)		D(mm)							
	PN Class	PN 2.5	PN 6	PN 10	PN 16	PN 25	PN 40	PN 63	PN 100	
10	18	39	39	46	46	46	46	56	56	
15	22	44	44	51	51	51	51	61	61	
20	27	54	54	61	61	61	61	72	72	
25	34	64	64	71	71	71	71	82	82	
32	43	76	76	82	82	82	82	88	88	
40	49	86	86	92	92	92	92	103	103	
50	61	96	96	107	107	107	107	113	120	
65	77	116	116	127	127	127	127	138	145	
80	89	132	132	142	142	142	142	148	155	
100	115	152	152	162	162	168	168	174	180	
125	141	182	182	192	192	194	194	210	217	
150	169	207	207	218	218	224	224	247	257	
175	195	237	237	248	248	255	267	277	287	
200	220	262	262	273	273	284	290	309	324	
250	273	317	317	328	329	340	352	364	391	
300	324	373	373	378	384	400	417	424	458	
350	356	423	423	438	444	457	474	486	512	
400	407	473	473	489	495	514	546	543	627	
450	458	528	528	539	555	564	571	588	704	
500	508	578	578	594	617	624	628	657	813	
600	610	680	680	695	734	731	747	764	950	
700	712	784	784	810	804	833	850	879		
800	813	890	890	917	911	942	970	988		
900	915	990	990	1017	1011	1042	1080	1108		
1000	1016	1090	1090	1124	1128	1154	1190	1220		
1200	1220	1290	1307	1341	1342	1364	1395			
1400	1420	1490	1524	1548	1542	1578	1615			
1600	1620	1700	1724	1772	1764	1798	1830			
1800	1820	1900	1931	1972	1964	2000				
2000	2020	2100	2138	2182	2168	2230				
2200	2220	2307	2348	2384	2375					
2400	2420	2507	2558	2594	2585					
2600	2620	2707	2762	2794	2785					
2800	2820	2924	2972	3014						
3000	3020	3124	3172	3228						
3200	3220	3324	3382							
3400	3420	3524	3592							
3600	3620	3734	3804							
3800	3820	3931								
4000	4020	4131								

ASME B 16.21 (ASME B16.47 SERIES B)

DN (mm)	d(mm)		D(mm)			
	Class	150	300	400	600	
26"	660	775	725	746	765	
28"	711	776	826	800	819	
30"	762	827	886	857	879	
32"	813	881	940	911	933	
34"	864	935	994	962	997	
36"	914	987	1048	1022	1048	
38"	965	1045	1099			
40"	1016	1095	1149			
42"	1067	1146	1200			
44"	1118	1197	1251			
46"	1168	1256	1318			
48"	1219	1307	1368			
50"	1270	1357	1419			
52"	1321	1408	1470			
54"	1372	1464	1530			
56"	1422	1514	1594			
58"	1473	1580	1656			

### TOLERANCES

(mm)	up to 600	over 600
d	±0.4	+0 -3.2
D	±0.4	+0 -3.2





**SALMARCON**



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