



Spiral Wound Gaskets of Spiratem

General Characteristics

The sealing element of the spiral wound gasket consists of a v-shaped metal strip spirallywound in combination with a soft sealing material filler. The metal strip provides outstanding resilience, while the flexible sealing filler guarantees excellent sealing. Due to the combination of materials the spiral wound gasket is suitable for sealing under severally fluctuating temperatura and pressure conditions. Depending on the application the spiral wound gasket can be specified with outer and/or inner rings.

spiral wound gaskets are suitable for use across a wide pressure range, and therefore is general purpose gasket universally applicable

spiral wound gaskets can be used to seal fluid pressure up to 250 bar and cryogenic temperatura as low as -200 °C

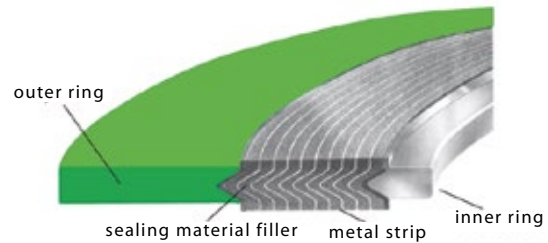
due to its sturdy design the spiral wound gasket is simple to install without causing damage (although extra care should be taken during transportation and installation of large diameter gaskets without guide rings)

outer guide rings serves to seat the spiral elemento centrally onto flange faces and prevent blow-out

thanks to the combination of diferente winding materials and metals, gaskets can be tailor made to a wide variety of operating conditions

due to its non-adhesive character the gasket is easy to remove after service

gaskets does not cause any damage to the flange faces



Standard Sizes

Raised face, male-female, tongue-groove, oval and non-standard

EN 1514 - 2 (1997)

ASME / ANSI B 16.5 for flanges, 150 to 2500 lbs - 1/2" az 24", acc. to gasket standard ASME B 16.20 (1993)

ASME B 16.47 serie A (MSS SP - 44) for flanges, 150 to 900 lbs - 26" to 60" acc. to gasket standard ASME B 16.20 (1998)

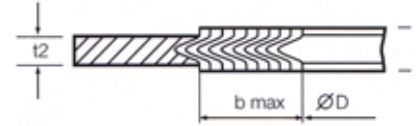
ASME B 16.47 serie B (API 605) for flanges, 150 to 900 lbs - 26" to 60" acc. to gasket standard ASME B 16.20 (1998)

BS 1560 ASME / ANSI B 16.5 for flanges, 150 to 2500 lbs - 1/2" to 24" acc. to gasket standard BD 3381

flanges acc. to DIN - for all types

non-standard acc. to specifications like ÖMV, MIDER, GOST, upon request

Selection of Gasket Thickness



Sealing element t1 [mm]	Tolerance [mm]	D [mm]	b max [mm]	t2 [mm]	Recommended thickness after fitting [mm]
7,2	+ 0,35	100 - 3200	33	5	5
6,4	+ 0,3	100 - 1600 1601 - 3200	30 25	4	4
4,8	+ 0,25	15 - 630 631 - 1600 1601 - 2000	35 30 20	3	3
3,5	+ 0,25	15 - 1000	25	2	2
3,2	+ 0,25	15 - 1000	20		
2,5	+ 0,25	15 - 500	10	1,5	1,5

t1 - sealing element thickness
t2 - outer ring thickness
D - inner diameter of sealing element
b max - sealing element width

Standard Metal Materials

Material	CSN specification	DIN specification	DIN material No.	AISI / ASTM	B.S.	Temperature [°C]	
						Min.	Max.
carbon steel	11 375	RSt. 37.2 CS	1.0038	238 - C	40B	-40	+500
stainless steel	17 240	X5CrNi 18	1.4301	304	304S15/16/31	-250	+550
stainless steel	17 247	X10CrNiTi 189	1.4541	321	321S12/49/87	-250	+550
stainless steel	17 249	X2CrNi 189	1.4306	304L	304S11	-250	+550
stainless steel	17 251	X15CrNiSi 2012	1.4828	309	309S24	-100	+1000
stainless steel	17 346	X5CrNiMo 1810	1.4401	316	316S31/33	-100	+550
stainless steel	17 348	X10CrNiMoTi 1810	1.4571	316Ti	320S31	-100	+550
stainless steel	17 349	X2CrNiMo 1810	1.4404	316L	316S11/13	-100	+550

Standard Fillers

Material	Temperature [°C]		pH	Application	Colour Coding
	Min.	Max.			
Graphite	-200	+550	0 - 14	agressive medium	grey
PTFE	-200	+250	0 - 14	agressive medium	white
Ceramic	-200	+1100	-	very high temperatures	light green
Mica	-200	+1000	-	high temperatures	pink

Seating Stress Range „Q”

Sealing Element	Single-side enclosed „Q” (N/mm ²) seating stress +20°C			Double-side enclosed „Q” (N/mm ²) seating stress +20°C		
	Min.	Recommended	Max.	Min.	Recommended	Max.
Graphite	50	90	180	50	122	300
PTFE	50	80	130	50	110	250
Ceramic	60	90	150	70	120	300



Standard Gasket Profiles

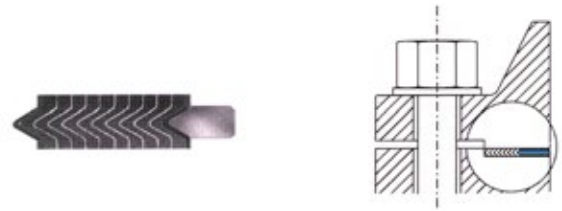
SPIRATEM 123

Spiral wound gasket consist element with outer and inner rings - complete gasket.



SPIRATEM 23

Identical to spiatem 123 but made and supplied without the outer ring (applied to male / female flanges).



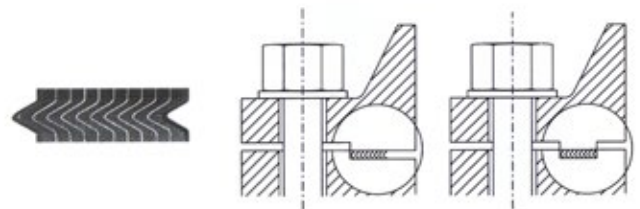
SPIRATEM 12

The standard spiral wound gasket format identical to Spiratem 2 but fitted with outer/centering ring (applied to raised face flanges).



SPIRATEM 2

The gasket consists of sealing element and V-shaped metal strip wound in combination.



Recommended Flange Surface Finish

Ra = 3,2 to 12,5 (µm)

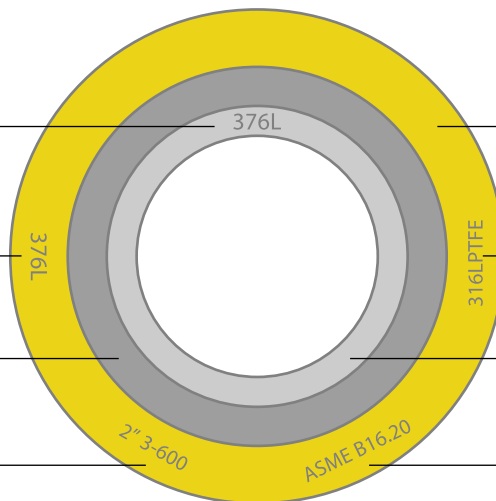
Spiral wound gasket are also available in oval/elliptical shapes.
Bars can be made upon the receipt of the drawing only. All of these are welded.

inner ring material stamped on inner ring (when other carbon steel or PTFE)

outer ring material (when other carbon steel)

spiral winding

nominal pipe size and pressure class (standard gaskets only)



outer (centering) ring

winding material and filler material

inner ring

manufactured to ASME B16.20



Camprofile Gaskets

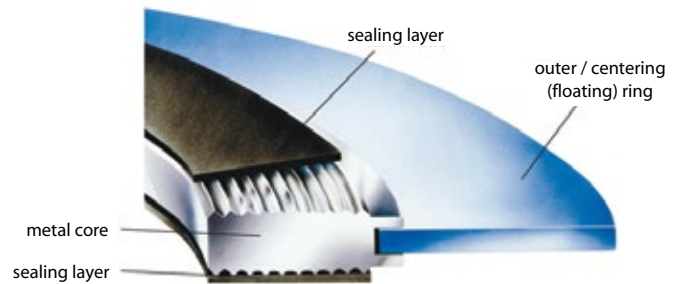
General Characteristics

camprofiles consist of the metal core, usually stainless steel with concentric grooves on either side, sealing layers are applied on both sides

camprofiles resist to pressures up to 250 bar, depending on the sealing layer gasket can resist temperatures up to approx. +1000 °C

suitable for applications acc. to specification for flanges (DIN, ASTM, EN, CSN etc.), the very wide seating stress range (highly suitable for varying temperatures and pressures, less sensitive to assembly faults, suitable for light and heavy designed flanges)

the gaskets do not damage the flange surface and can be easily removed

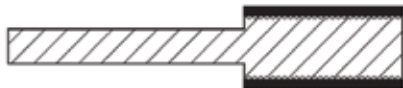


Standard Gasket Profiles

PARALLEL

M18L

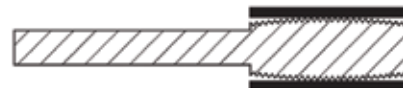
Parallel root core with integral centering ring and sealing layers.



CONVEX

M38L

Convex root core with integral centering ring and sealing layers.



PARALLEL

M18L

Parallel root core with integral centering ring and sealing layers.



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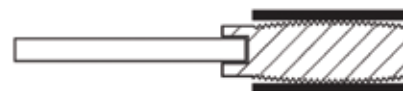
Parallel root core with integral centering ring and sealing layers.



CONVEX

M38L

Convex root core with integral centering ring and sealing layers.



Standard core materials

CSN	AISI ASTM	DIN material No.	DIN specification	Hardness HB	Temperature [°C]		Density [g/cm ³]
					Min.	Max.	
11 373, 11 375	Carbon Steel	1.0038	RSt. 37.2 CS	100 - 130	-40	+500	7,85
17 247	321	1.4541	X10CrNiTi 189	130 - 190	-250	+550	7,9
17 249	304L	1.4306	X2CrNi 189	130 - 190	-250	+550	7,9
17 251	309	1.4828	X15CrNiSi 2012	130 - 190	-100	+1000	7,9
17 348	316Ti	1.4571	X10CrNiMoTi 1810	130 - 190	-100	+550	7,8
17 349	316L	1.4404	X2CrNiMo 1810	130 - 190	-100	+550	7,9

Recommended core thickness

3 mm and for new systems 4 mm

Recommended sealing layer thickness: 2 x 0,5 mm, or 2 x 1,0 mm

Graphite	-200	+550	Ceramic	-200	+1100
PTFE	-200	+250	CSF	-40	+250

Recommended Flange Surface Finish

Ra = 3,2 to 6,3 (µm)

Seating stress range „Q”

Sealing Element	Min.	Seating stress „Q” (N/mm ²) +20°C	
		Recommended	Max.
Graphite	20	90	400
PTFE	20	90	400
Ceramic	40	125	400



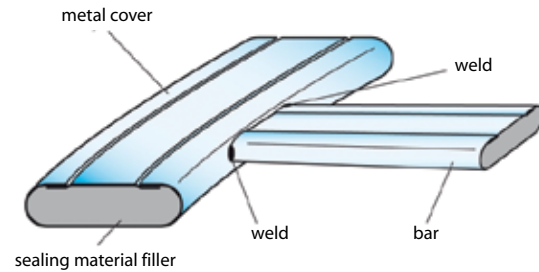
Double Jacketed Gaskets

General Characteristics

metal jacketed gaskets consist of a metal cover and soft sealing material filler

the sealing filler provides outstanding resilience while the metal jacket guarantees excellent sealing and protects the filler against high pressure conditions, fluctuating temperatures and corrosion

a wide variety of materials is available to guarantee excellent sealing under specific conditions

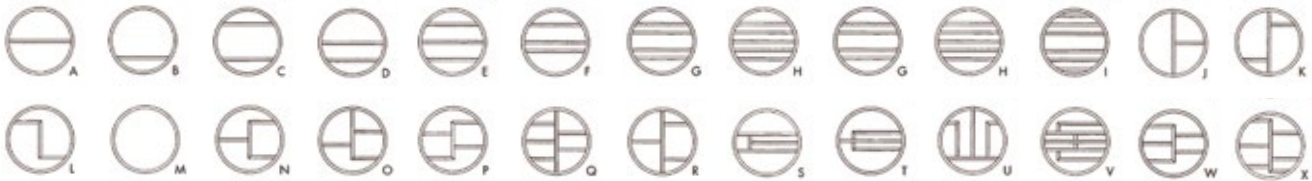


Standard gasket profiles

S6



S12



Standard metal materials

Material	CSN	AISI ASTM	DIN material No.	DIN specification	Hardness HB	Temperature [°C] Min.	Temperature [°C] Max.	Density [g/cm ³]
carbon steel	11 375	238 - C	1.0038	RSt. 37.2 CS	100 - 130	-40	+500	7,85
stainless steel	17 247	321	1.4541	X10CrNiTi 189	130 - 190	-250	+550	7,9
stainless steel	17 249	304L	1.4306	X2CrNi 189	130 - 190	-250	+550	7,9
stainless steel	17 348	316Ti	1.4571	X10CrNiMoTi 1810	130 - 190	-100	+550	7,8
stainless steel	17 349	316L	1.4404	X2CrNiMo 1810	130 - 190	-100	+550	7,9
monel 400	-	N04400	2.4360	NiCu 30 Fe	110 - 150	-125	+600	8,8
copper	-	-	2.0090	-	50 - 80	-250	+400	8,9

Standard sealing filler

Graphite	-200	+550
CSF	-100	+250

Dimensions

from 250 to 3000 mm
bars are welded (if applicable)

RTJ - Ring Type Joints

General Characteristics

RTJ are metallic sealing rings suitable for high pressure (up to 1500 bar) and high temperature (up to 1000 °C) applications

RTJ are supplied in two basic profiles: oval (M8) or octagonal (M9)

RTJ are always used in combination with special flanges which ensure good and reliable sealing with the correct choice of material and profile

Recommended flange surface finish

Profile R, RX: 1,6 (µm)
Profile BX: 0,8 (µm)

Standard Gasket Profiles

M8-R oval

Model M8 is a standard RTJ of the oval type and designed for flanges with standard ring joint grooves.



M12-RX

Model M12-RX is for pressure up to 750 bar. The RX series RTJ are interchangeable with the standard R models. The bolt lengths must be extended because of the RX series additional height.



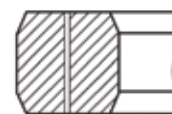
M9-R octagonal

Model M9 is standard RTJ of the octagonal type and designed for flanges with standard ring joint grooves.



M11-BX

M11-BX is RTJ for very high pressures - up to 1500 bar. This RTJ is suited only for API-type BX flanges and grooves. Model BX incorporates a pressure balance hole to ensure equalisation of pressure.





Compressed Fibre Jointing Sheets

TEMAFAST ECONOMY

TEMAFAST



Colour
Wire insertion
Description
Range usage
Certification

Yellow
No
The economy version of jointing manufactured from mixture of organic fibres with mixture NBR/SBR rubber binder.
This grade has wide area usage in all sorts of industries at lower parameters.
Germanischer Lloyd KTW, GOST, PZH

Red
No
Basic jointing manufactured from organic fibres with NBR binder.
This grade has wide industrial usage at lower medium temperature and pressure parameters.
Germanischer Lloyd KTW, PZH Poland, GOST

Technical data

Marking according DIN 28 091-2
Marking according ASTM F 104
Max. temperature * peak °C
continual °C
Max. pressure * Bar

FA-Z - 12 - 0
F712 120 M4
210
140
40

FA-MZ - 1 - 0
F712 120 M4
210
140
40

* Maximum temperature and pressure values can not be used simultaneously.

General Data

Standard sheet size: 1,5 x 1,5 m 1,5 x 1,0 m another sheet sizes are available upon the costumer request.	Tolerance: ± 2 %	Standard thickness: 0,4 ; 0,5 ; 0,8 ; 1,0 ; 1,5 ; 2,0 ; 3,0 ; 4,0 ; 5,0 mm with wire insertion 0,8 ; 1,0 ; 1,5 ; 2,0 ; 3,0 ; 4,0 ; 5,0 mm	Thickness tolerances: 0,4 - 0,8 ± 0,1 mm 1,0 - 5,0 ± 10 %	Surface: all jointings are produced with an antistick surface on one side.
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		TEMAFAST ECONOMY	TEMAFAST
Typical parameters of 2mm thickness jointing			
Density	DIN 28090-2 g/cm³	1,7 - 2,0	1,6 - 1,9
Compressibility	ASTM F 36 %	12	18
Recovery	ASTM F 36 %	50	50
Residual Stress (175°C)	DIN 52 913 MPa	20	20
Gas leakage λ _{2,0}	DIN 3535-6/99 mg/(m*s)	0,1	0,1
Fluid resistance - thickness increase			
Oil IRM 903 (5h/150°C)	ASTM F 146 %	15	5
ASTM Fuel B (5h/23°C)	ASTM F 146 %	15	10
<p>1 - suitable area (even for steam application) 2 - suitable extended area, technical advice is recommended 3 - for this technical consultation is mandatory</p>			



Compressed Fibre Jointing Sheets

TEMASIL - NEW GENERATION

TEMASIL HT



Colour
Wire insertion
Description

Blue
Yes
The new generation of high quality material based on a blend of special temperature resisting fibres and other agents with NBR. It is easy to cut due its flexibility and smooth surface.

Light Blue
Yes
Superior performance copressed jointing material incorporating a blend of special heat resistant aramid fiber and high quality nitrile rubber binder completely fresh ecological type of sheets suitable for elevated temperature and steam applications, exhibiting excellent gas sealability.

Range usage

This general purpose jointing sheet is regardful of environment and can be used in the wide range of industries such as petrochemical, chemical, food and oil as well as engineering area.

Due to its compositing of high quality raw materials, this particular grade is used in petrochemical, chemical and food industries, wide area of machinery. It is suitable for oils, fuels, lubricants, alcohol, gases, hydrocarbons, water, cooling liquids, and most diluted acids and alkalis.

Certification

PZH
procedures are under process

DVGW
procedures are under process

Technical data

Marking according DIN 28 091-2

FA-MA-1-0 (ST)

FA-M-1-0 (ST)

Marking according ASTM F 104

F712 111 M5 (M7)

F712 111 M6 (M7)

Max. temperature * peak °C

400

450

continual °C

250 (steam 200)

330 (steam 250)

Max. pressure * Bar

100

120

* Maximum temperature and pressure values can not be used simultaneously.

General Data

Standard sheet size:

1,5 x 1,5 m

1,5 x 1,0 m

another sheet sizes are available upon the costumer request.

Tolerance:

± 2 %

Standard thickness:

0,4 ; 0,5 ; 0,8 ; 1,0 ; 1,5 ;
2,0 ; 3,0 ; 4,0 ; 5,0 mm

with wire insertion

0,8 ; 1,0 ; 1,5 ; 2,0 ; 3,0 ;
4,0 ; 5,0 mm

Thickness tolerances:

0,4 - 0,8 ± 0,1 mm

1,0 - 5,0 ± 10 %

Surface:

all jointings are produced with an antistick surface on one side.

		TEMASIL - NEW GENERATION	TEMASIL HT
Typical parameters of 2mm thickness jointing			
Density	DIN 28090-2 g/cm³	1,7 - 2,0	1,7 - 2,0
Compressibility	ASTM F 36 %	10	10
Recovery	ASTM F 36 %	50	55
Residual Stress (175°C)	DIN 52 913 MPa	30	32
Gas leakage λ _{2,0}	DIN 3535-6/99 mg/(m*s)	0,06	0,04
Fluid resistance - thickness increase			
Oil IRM 903 (5h/150°C)	ASTM F 146 %	3	3
ASTM Fuel B (5h/23°C)	ASTM F 146 %	5	5
<p>1 - suitable area (even for steam application) 2 - suitable extended area, technical advice is recommended 3 - for this technical consultation is mandatory</p>			



Compressed Fibre Jointing Sheets

TEMAPLUS

TEMACARB



Colour	Green	Black
Wire insertion	Yes	Yes
Description	Superior performance jointing material incorporating a blend of special heat resistant aramid fibres with a high quality NBR binder.	Premium quality carbon fibre reinforced material with a high quality nitrile rubber binder.
Range usage	This gasketing sheet with excellent mechanical properties (high resistance to creep under elevated temperature and pressure) is suitable for oils, fuels, lubricants, alcohol, gases, hydrocarbons, cooling liquids and most diluted acids and alkalis.	A universal quality carbon fibre reinforced material with a high quality nitrile rubber binder.
Certification	Germanischer Lloyd UDT Poland, GOST	GOST

Technical data

Marking according	DIN 28 091-2	FA-MA-1-0 (ST)	FA-M-1-0 (ST)
Marking according	ASTM F 104	F712 111 M6 (M7)	F712 110 M6 (M7)
Max. temperature *	peak °C	450	450
	continual °C	250	250 (steam 250)
Max. pressure *	Bar	130	100

* Maximum temperature and pressure values can not be used simultaneously.

General Data

Standard sheet size:	Tolerance:	Standard thickness:	Thickness tolerances:	Surface:
1,5 x 1,5 m 1,5 x 1,0 m another sheet sizes are available upon the customer request.	± 2 %	0,4 ; 0,5 ; 0,8 ; 1,0 ; 1,5 ; 2,0 ; 3,0 ; 4,0 ; 5,0 mm with wire insertion 0,8 ; 1,0 ; 1,5 ; 2,0 ; 3,0 ; 4,0 ; 5,0 mm	0,4 - 0,8 ± 0,1 mm 1,0 - 5,0 ± 10 %	all jointings are produced with an antistick surface on one side.

		TEMAPLUS	TEMACARB
Typical parameters of 2mm thickness jointing			
Density	DIN 28090-2 g/cm³	1,6 - 1,9	1,5 - 1,9
Compressibility	ASTM F 36 %	10	9
Recovery	ASTM F 36 %	50	50
Residual Stress (175°C)	DIN 52 913 MPa	32	32
Gas leakage λ _{2,0}	DIN 3535-6/99 mg/(m*s)	0,03	0,05
Fluid resistance - thickness increase			
Oil IRM 903 (5h/150°C)	ASTM F 146 %	3	3
ASTM Fuel B (5h/23°C)	ASTM F 146 %	5	5
<p>1 - suitable area (even for steam application) 2 - suitable extended area, technical advice is recommended 3 - for this technical consultation is mandatory</p>			



Compressed Fibre Jointing Sheets

GRAFTEM ECONOMY

TEMACID



Colour

Black

Grey

Wire insertion

Yes

No

Description

Economic non-asbestos fasketing sheet which combines graphite reinforced with aramid fibres and a low content of rubber binder system.

Premium quality acid jointing gasket material based on a blend of fibres with a special binder system.

Range usage

This jointing sheet with excellent mechanical properties is suitable for many applications including fuel, oil, coolants, hydrocarbons, gas and steam.

A chemical grade material suitable for most acids alkalis, oils, fuels and refrigerants.

Certification

procedures are under process

GOST

Technical data

Marking according DIN 28 091-2

FA-AZ-1-0 (ST)

FA-M-1-0 (ST)

Marking according ASTM F 104

F712 110 M5 (M7)

F712 122 M5

Max. temperature * peak °C

360

210

continual °C

200 (steam 180)

140

Max. pressure * Bar

80

40

* Maximum temperature and pressure values can not be used simultaneously.

General Data

Standard sheet size:

1,5 x 1,5 m

1,5 x 1,0 m

another sheet sizes are available upon the customer request.

Tolerance:

± 2 %

Standard thickness:

0,4 ; 0,5 ; 0,8 ; 1,0 ; 1,5 ;
2,0 ; 3,0 ; 4,0 ; 5,0 mm

with wire insertion

0,8 ; 1,0 ; 1,5 ; 2,0 ; 3,0 ;
4,0 ; 5,0 mm

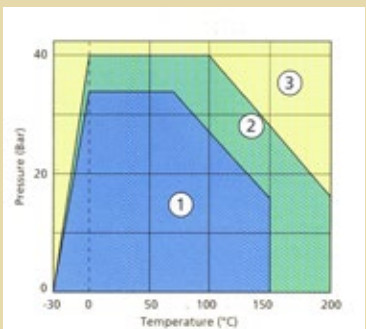
Thickness tolerances:

0,4 - 0,8 ± 0,1 mm

1,0 - 5,0 ± 10 %

Surface:

all jointings are produced with an antistick surface on one side.

		GRAFTEM ECONOMY	TEMACID
Typical parameters of 2mm thickness jointing			
Density	DIN 28090-2 g/cm³	1,8 - 2,1	1,7 - 2,1
Compressibility	ASTM F 36 %	5-15	10
Recovery	ASTM F 36 %	50	50
Residual Stress (175°C)	DIN 52 913 MPa	30	20
Gas leakage λ _{2,0}	DIN 3535-6/99 mg/(m*s)	0,1	0,1
Fluid resistance - thickness increase			
Oil IRM 903 (5h/150°C)	ASTM F 146 %	5	16% Sulphuric acid (96%)
ASTM Fuel B (5h/23°C)	ASTM F 146 %	10	15% Hydrochloride acid (36%) 7% Nitric acid (50%)
<p>1 - suitable area (even for steam application) 2 - suitable extended area, technical advice is recommended 3 - for this technical consultation is mandatory</p>			



Chemical Resistance Table

	TEMAFAST ECONOMY	TEMAFAST	TEMASIL NEW GENERATION	TEMASIL HT	TEMAPLUS	TEMACARB	GRAFTEM ECONOMY	TEMACID
Acetic acid 100%	C	C	A	A	A	A	A	A
Acetone	B	B	B	B	B	B	B	A
Acetylene	A	A	A	A	A	A	A	A
Air	A	A	A	A	A	A	A	A
Aluminium Chloride	A	A	A	A	A	A	A	A
Ammonia	B	B	A	A	A	A	A	A
Ammonium hydrogenphosphate	B	B	A	A	A	A	A	A
Barium Chloride	A	A	A	A	A	A	A	A
Benzene	B	B	A	A	A	A	A	A
Boric Acid	B	B	A	A	A	A	A	A
Calcium hydroxide	B	B	A	A	A	A	A	A
Carbon dioxide	A	A	A	A	A	A	A	A
Copper sulphate	A	A	A	A	A	A	A	A
Crude oil	C	C	A	A	A	A	A	A
Cyclohexanol	B	B	A	A	A	A	A	A
Cyklohexanon	C	C	B	B	B	B	B	B
Di-butyl phtalate	A	A	A	A	A	A	A	A
Ethyl ether	B	A	A	A	A	A	A	A
Ethylen	A	A	A	A	A	A	A	A
Ethylene glycol	B	B	A	A	A	A	A	A
Formic Acid 10%	B	B	A	A	A	A	A	A
Glycerine	A	A	A	A	A	A	A	A
Hydraulic Oil (mineral)	B	B	A	A	A	A	A	A
Hydrogen Chloride Dry	B	B	A	A	A	A	A	A
Hydrochlorid Acid 20%	C	C	B	B	A	A	B	A
Chlorine Dry	B	B	A	A	A	A	A	A
Chloroform	C	C	B	B	B	B	B	B
Iso-Octane	B	B	A	A	A	A	A	A
Kerosene	B	B	A	A	A	A	A	A
Methilene Chloride	C	C	C	C	C	C	C	C
Natural Gas	A	A	A	A	A	A	A	A

	TEMAFAST ECONOMY	TEMAFAST	TEMASIL NEW GENERATION	TEMASIL HT	TEMAPLUS	TEMACARB	GRAFTEM ECONOMY	TEMACID
Nitric Acid 20%	C	C	C	C	C	B	C	A
Nitrogen	A	A	A	A	A	A	A	A
Petrol	B	B	A	A	A	A	A	A
Petroleum	B	B	A	A	A	A	A	A
Phenol	C	C	C	C	C	C	C	B
Potable Water	A	A	A	A	A	A	A	A
Potassium Cyanide	B	B	A	A	A	A	A	A
Potassium Iodide	A	A	A	A	A	A	A	A
Saturated Steam	B	B	A	A	A	A	A	B
Silicon Oil	B	B	A	A	A	A	A	A
Sodium Carbonate	A	A	A	A	A	A	A	A
Sodium Hydrogen Carbonate	B	B	A	A	A	A	A	A
Sodium Hydrogen Sulphite	B	B	A	A	A	A	A	A
Sodium Hydroxide	B	B	B	B	B	B	B	A
Sodium Chloride	A	A	A	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A	A	A	A
Sugar	A	A	A	A	A	A	A	A
Sulphuric Acid 65%	C	C	C	C	C	C	C	A
Tartaric Acid	A	A	A	A	A	A	A	A
Tetrachlormethane	C	C	B	B	B	B	B	B
Toluene	C	C	A	A	A	A	A	A
Transformer Oil	B	B	A	A	A	A	A	A
Turpentine	A	A	A	A	A	A	A	A
Xylene	B	B	A	A	A	A	A	A

A recommended

B suitability depends on conditions

C not suitable

If another medium is applied please contact our technical department.



Page No.	Colour Code	Asbestos Free	Principal Materials of Manufacture	Construction	Application		
					Pumps		Valves
					Rotary	Recip	
6	■	Beaver 65	Flax, Graphite, Lubricants	■	●	●	●
6	■	Lighthouse 67	Flax, Mica, Lubricants	■	●	●	●
6	■	Pilotpack 3411	PTFE, PTFE Dispersion, Silicone	×	●	●	●
6	■	Pilotpack 5010	Aramid, PTFE, Lubricants	×	●	●	●
7	■	Tartan 116	Cotton, Graphite, Lubricants	■	●	●	●
7	■	Pilot Sternpack 2010	Flax, PTFE, Lubricants	×	●	●	●
7	■	Ramie Pack 7000	Ramie, PTFE, Lubricants	×	●	●	●
7	■	Tartan 76	Cotton, Lubricants	×	●	●	●
8	■	Pilotpack 5025	Aramid, PTFE, Lubricants	×	●	●	●
8	■	Pilotpack 3001	Extruded PTFE, Graphite, Lubricants	●	●		
8	■	Pilotpack 3408	PTFE Filament Yarn, PTFE	×	●	●	●
8	■	Pilotpack 3410	PTFE Filament Yarn, PTFE, Lubricants	×	●	●	●
9	■	Pilotpack 3435	Graphit impregnated PTFE, Lubricants	×	●	●	●
9	■	Pilotpack 5020	Aramid, PTFE, Lubricants	×	●	●	●
9	■	Pilotpack 5030	Aramid, Silicone PTFE, Lubricants	×	●	●	●
9	■	Pilotpack 5035	Aramid, PTFE Graphited Yarn, Lubricants	×	●	●	●
10	■	Pilotpack 5036	PTFE Graphite impregnated Silicone Lubricants	×	●	●	●
10	■	Pilotpack 5045	Aramid, Graphite, Silicone, PTFE, Lubricants	×	●	●	●
10	■	Pilotpack 5417	Aramid, PTFE, Lubricants	×	●	●	●
10	■	Pilotpack 7033	Polypropylene, PTFE, Lubricants	×	●	●	●
11	■	Pilotpack 7044	Polypropylene, PTFE	×			●
11	■	Pilotpack 8022	Polypropylene, PTFE, Lubricants	×	●	●	●
11	■	Pilot Cordpack 3235	Spirally wrapped PTFE Cord				●
11	■	Pilotsil 8422	BCX Fibre, PTFE, Lubricants	×	●	●	●
12	■	Pilotsil 8545	BCX Fibre, PTFE	×	●	●	●
12	■	Pumpmaster 5060	Multi Fitment Polyimide PTFE Lubricant	×	●	●	●
12	■	Pilotgraph 4000 Super	Exfoliated Graphite, Inconel	×		●	●
12	■	Pilotgraph 4001 Super	Exfoliated Graphite	×	●	●	●
13	■	Pilotpack 4010	Graphite, Filament Yarn, PTFE	×	●	●	●
13	■	Pilotsil 8113	BCX Fibre, Graphite, Lubricants	×	●	●	●
13	■	Pilotsil 8114	BCX Fibre, Mica, Lubricants	×	●	●	●
13	■	Pilotsil 8401 Cloth	BCX Fibre				
14	■	Pilotsil 8406 Webbing	BCX Fibre				
14	■	Pilotsil 8500	BCX Fibre, Inconel Wire, Mica	×			●
14	■	Pilotsil 8510	BCX Fibre				
14	■	Pilotsil Valvepack 8300	BCX Fibre, Inconel Wire, Plastic Core	●○			●
15	■	Pilotgraph 4040/4045	Graphite		●	●	●



SEALING TECHNOLOGY

Environmentally Friendly

Operating Conditions								Water	Sea Water	Weak Acids	Strong Acids	Food	Petroleum Products	Steam	Weak Alkalis	Strong Alkalis	Oxygen	Food	Petroleum Products	Steam	Weak Alkalis		
Shaft Speed m/s		† Pressure - bar			† Max. Temp	pH Range																	
Rotary	Recip	Rotary	Recip	Valves	Deg. C																		
8	2	20	40	70	120	5-9	✓	✓															
8	2	20	40	70	120	5-9	✓	✓															
10	2	20	150	200	280	0-14	✓		✓		✓				✓	✓							✓
20	2	20	200	300	300	2-13	✓		✓	✓	✓				✓			✓	✓				✓
10	2	25	40	100	120	5-9	✓	✓															
10	2	20	40	70	120	5-9	✓	✓	✓						✓								
11	1	20	70	100	140	2-12	✓	✓			✓							✓					✓
10	2	25	70	100	120	5-9	✓	✓	✓		✓												
20	20	20	40	100	280	1-14	✓	✓	✓		✓				✓			✓	✓				
12	12	12	-	12	280	0-14	✓		✓			✓			✓	✓						✓	✓
10	10	10	200	350	280	0-14			✓	✓	✓				✓	✓	✓					✓	✓
15	15	15	150	200	280	0-14			✓	✓	✓				✓	✓							✓
25	25	25	200	350	290	0-14	✓		✓	✓		✓			✓	✓		✓					✓
20	20	20	200	300	300	2-13	✓		✓	✓	✓				✓			✓	✓				✓
20	20	20	150	200	200	2-13	✓		✓		✓				✓			✓	✓				✓
25	25	25	250	350	290	1-14	✓		✓			✓			✓			✓	✓				
20	20	20	200	250	200	1-14	✓		✓			✓			✓	✓		✓	✓				✓
20	20	20	200	250	200	2-13	✓		✓	✓		✓			✓			✓	✓				✓
20	20	20	200	300	280	2-13	✓		✓		✓				✓			✓	✓				✓
10	10	10	40	70	120	3-14	✓		✓	✓	✓				✓			✓					✓
-	-	-	-	5	120	2-13			✓		✓				✓			✓					✓
16	16	16	100	150	290	2-12	✓		✓			✓	✓		✓			✓				✓	✓
-	-	-	-	50	280	0-14	✓	✓	✓		✓				✓	✓		✓				✓	✓
10	10	10	70	100	300	3-13	✓		✓	✓					✓			✓				✓	✓
5	5	5	70	100	300	2-13			✓						✓	✓							✓
18	18	18	150	200	290	0-12	✓	✓	✓	✓		✓	✓		✓			✓	✓				
-	-	-	200	500**	500*	0-14	✓		✓			✓	✓	✓	✓	✓		✓				✓	✓
25	25	25	200	300	500*	0-14	✓		✓			✓	✓	✓	✓	✓		✓				✓	✓
25	25	25	100	200	500*	3-13	✓		✓			✓	✓	✓	✓			✓				✓	✓
10	10	10	70	100	400	3-13	✓		✓			✓	✓	✓				✓	✓			✓	
10	10	10	70	100	400	3-13	✓		✓			✓	✓	✓				✓	✓			✓	
-	-	-	-	-	750	3-13	✓		✓				✓	✓									
-	-	-	-	-	750	3-12	✓		✓					✓	✓								
-	-	-	-	150	700	3-14								✓								✓	
-	-	-	-	-	750	3-12	✓		✓					✓	✓							✓	
-	-	-	120	170	540	3-14								✓				✓				✓	
30	30	30	200	350	500*	0-14	✓		✓			✓	✓	✓	✓	✓		✓				✓	✓