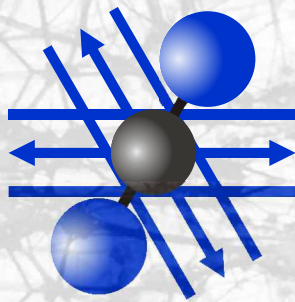


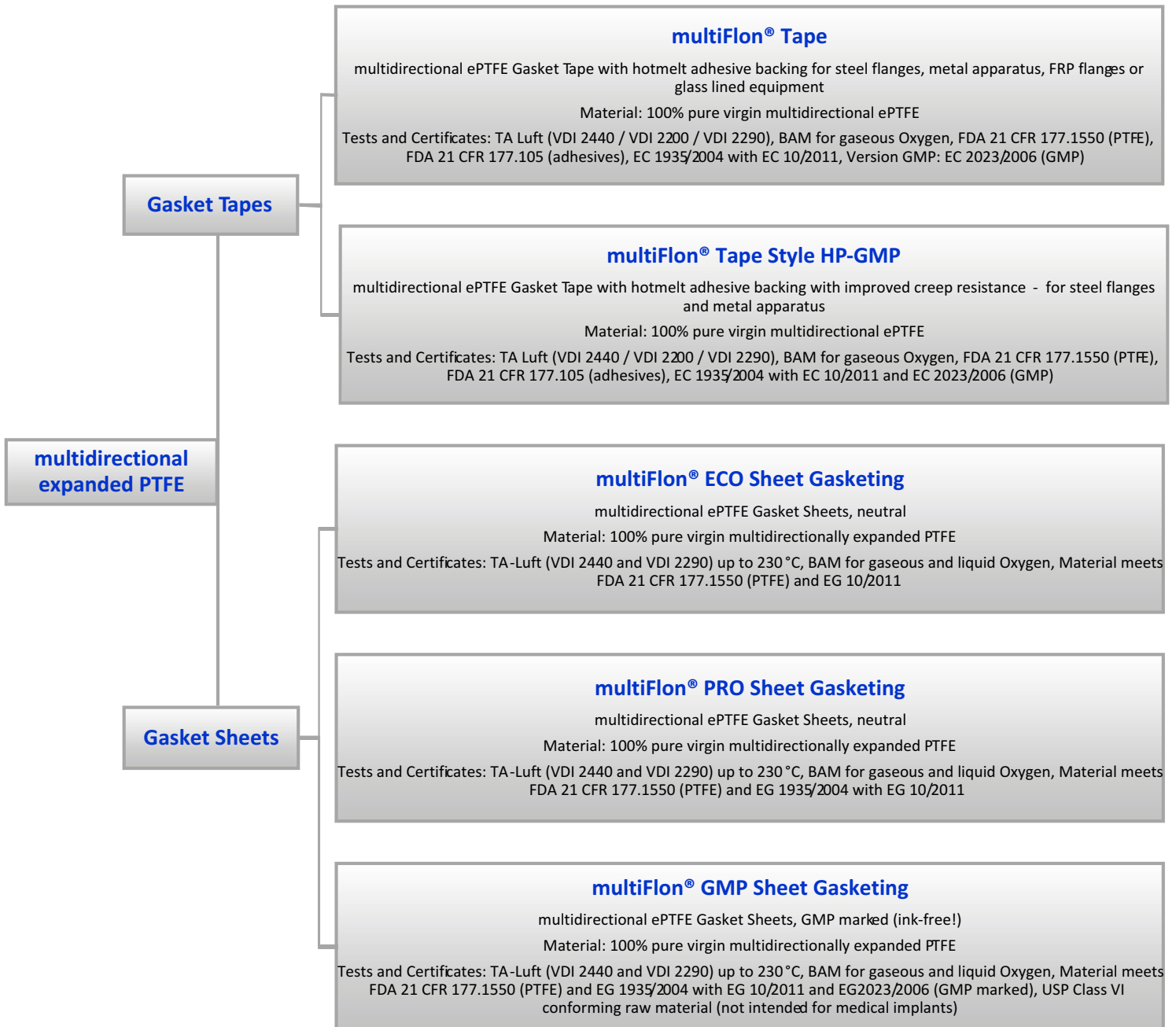
**Expanded and Microstructured
PTFE**



FluorTex GmbH
Polymer Technology

**Gasketing Materials
for technical applications**

multiFlon® Sealant Overview



Multidirectionally expanded PTFE Tape



Multidirectional ePTFE Form-In-Place Gasket Tape

multiFlon® Tape is the high grade alternative to reduce maintenance, loss production, material costs and scrap with large diameter piping and metal or glass lined apparatus flanges.

multiFlon® Gasket Tape is made from 100% pure multidirectionally expanded Teflon™ PTFE. Its characteristics are directly comparable to gaskets made out of **multiFlon® Sheet Gasketing** material. This multidirectional ePTFE gives excellent creep resistance for a long-lasting seal, that is reliably tight and blow-out safe.

multiFlon® Tape has an adhesive backing and can easily be formed in place. It is highly conformable and the ideal choice for sealing large flanges and complex steel equipment in demanding applications.

For the use in high purity applications **multiFlon® Tape** is available in a GMP conforming style.

Typical Applications

Components

large diameter flanges, mixers, stirrers, columns, pump and turbine housings, steel equipment with higher surface irregularities, vessels (for TRD401 vessels contact our technical service) as well as heat exchangers in all industries

Flanges

all types of flanges, large and complex geometries

Sealing Areas and Flange Materials

Steel, Aluminium, Inconel, other metal alloys, FRP, Glass



certified quality for glass lined equipment

Key Features

- 100 % pure multidirectionally expanded Teflon™ PTFE
- chemically inert (for use in contact with pure alkali metals and elemental fluorine gas please contact our technical service)
- temperature resistant
- conformable and adaptable
- low compressive creep and dimensionally stable
- quickly and easily to install
- reliably tight and long-lasting
- conforms to TA-Luft (according VDI 2440)
- Lowers inventory and installation costs



Technical Data

Material

100 % pure, multidirectionally expanded PTFE (ePTFE)

Temperature Resistance of the Sealing Material

-240°C to +270°C, intermittent to +315°C

Chemical Resistance

Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine

Recommended Application Range

Temperature: up to 250°C

Pressure: Vacuum to 68 bar

depending on the installation parameters higher figures can be achieved

Approvals and Safety

TA-Luft (VDI 2440) up to 230°C and VDI 2290 @ 40bar He

BAM permit for gaseous Oxygen

for Style GMP: FDA 21 CFR 177.1550 (PTFE)

EG1935 and relating regulations for extraction limits and GMP

Multidirectionally expanded PTFE Tape

Sizes and Spool Lengths

Thickness [mm]	Standard Nominal Widths [mm]	Standard Lengths [m]
2	10 to 35 mm in 5 mm steps	10 / 15 / 25
3	10 to 65 mm in 5 mm steps	10 / 15 / 20
6	10 to 65 mm in 5 mm steps	10 / 15 / 20
9	10 to 65 mm in 5 mm steps	10 / 15 / 20

Other sizes and lengths upon request

Properties

EN 13555 (3 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)):	29 MPa
Q_{Smin} ($Q_s=40$ MPa; 40 bar He; L=0,01):	< 10 Mpa
Q_{Smax} (23°C):	170 Mpa
PQR @ 23 °C ($Q_s=30$ MPa):	0,91

ASTM F36

Compressibility:	50 - 55 %
compressed Thickness:	1,42 mm
Recovery:	13 %
recovered Thickness:	1,63 mm

EN 13555 data based on the standard test for gasket rings, carried out with **multiFlon®Tape** size 15x3mm, shaped to a closed gasket ring ID=50mm.

Assembly

Completely clean the sealing surfaces. Remove any dirt, corrosion, oil, or leftover from old gasket materials.

Cut one ending of the gasketing using the skiving technique shown in Figure 1 >.

Remove just a little of the covering paper from the adhesive backing and position the tape at the center of the effective sealing width, placing the skive just next to a bolt hole on its pressure relating side. Fit the gasket tape around the entire flange circumference.

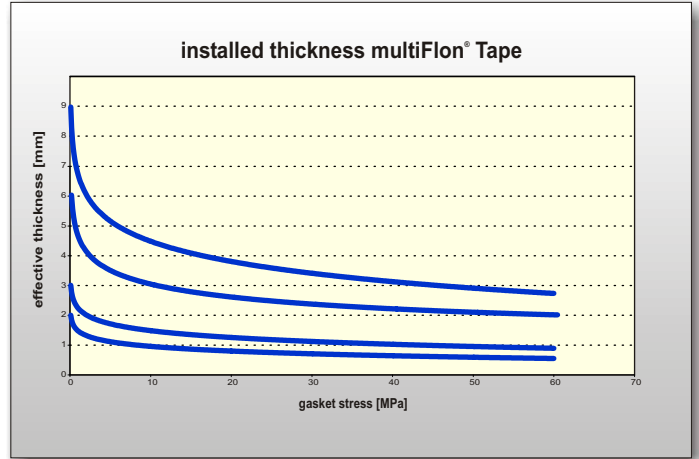
Lay the tape across the skive, completing with a second cut as shown in Figure 2 >, allowing the overlap length as required.

Horizontally cut off the excess, leaving a total thickness of approximately 120% of the original thickness.

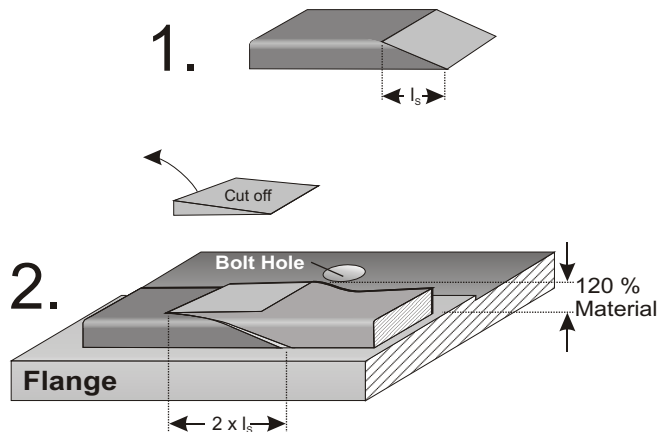
At least 3 progressive torque sequences in a star or 180° method should be used.

Lastly, perform a circular torque check to ensure a tight, long-lasting seal.

Gasket Characteristics



Assembly with skiving technique



length of the skive cut l_s for multiFlon® Tape

Thickness [mm]	Lenght skive cut (l_s) [mm]
2	10 - 20
3	15 - 25
6	25 - 35
9	35 - 45

All technical information and advice are based on our experience and are to the best of our knowledge, but do not state any liability by our company. Specifications and values must always be checked by the customers, for they are the only ones that can judge the efficiency of a product taking into account all of the on site operating conditions. For detailed selection criteria, technical assistance and installation guidelines contact our technical Service.

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 **FluorTex**^{GmbH}
Polymer Technology

The New Generation of multidirectional ePTFE Gasket Tapes



multiFlon® Tape Style HP is the new generation of multidirectionally expanded PTFE gasket tapes for use in metal pipelines and apparatus flanges.

The optimized fibre structure of this novel material leads to significantly improved creep resistance and a lower setting behaviour compared to the products used so far.

multiFlon® Tape Style HP is self-adhesive on one side, flexible and compressible. Due to the high formability the gasket adapts optimally to flange roughness and unevenness.

MultiFlon® Tape Style HP is made from 100% pure multidirectionally expanded PTFE. Therefore it offers an excellent chemical resistance also in demanding applications.

Due to the use of high quality raw materials and the regulated manufacturing process this gasket tape is also available in a GMP version.

Typical Applications

Components

Large diameter flanges, mixers, stirrers, columns, pump and turbine housings, steel equipment with higher surface irregularities, vessels (for TRD401 vessels contact our technical service) as well as heat exchangers in all industries

Flanges

All types of flanges, large and complex geometries

Sealing Areas and Flange Materials

Steel, Aluminium, Inconel, other metal alloys, FRP

Key Features

- made from pure multidirectionally expanded Teflon™ PTFE
- chemically inert (for use in contact with pure alkali metals and elemental fluorine gas please contact our technical service)
- temperature resistant
- conformable and adaptable
- low compressive creep and dimensionally stable
- individually adaptable and quickly to install
- reliably tight and long-lasting
- increases operational reliability
- conforms to German TA-Luft

Technical Data

Material

100 % pure, multidirectionally expanded PTFE (ePTFE)

Temperature Resistance of the Sealing Material

-240°C to +270°C, intermittent to +315°C

Chemical Resistance

Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine

Recommended Application Range

Vacuum up to 68 bar (1000 psig) depending on the installation parameters.

Approvals and Safety

TA-Luft up to 230 °C (for steel and glass lined flanges)

FDA 21 CFR 177.1550 (PTFE)

FDA 21 CFR 175.105 (adhesive)

EC1935 and relating regulations for extraction limits and GMP BAM for gaseous Oxygen



Tape Style HP



Multidirectionally expanded PTFE

Sizes and Spool Lengths

Width [mm]	Thickness [mm] / Spool Length [m]		
	2 mm	3 mm	6 mm
10	10 / 20 / 25	10 / 20 / 25	10 / 20 / 25
15	10 / 20 / 25	10 / 20 / 25	10 / 20 / 25
20	10 / 20 / 25	10 / 20 / 25	10 / 20 / 25
25	10 / 20 / 25	10 / 20 / 25	10 / 20 / 25
30	10 / 20 / 25	10 / 20 / 25	10 / 20 / 25
35		10 / 20 / 25	10 / 20 / 25

Special sizes and lengths upon request

Properties

EN 13555 (2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)):	25 MPa
Q_{Smin} ($Q_A=30$ MPa; 40 bar He; L=0,01):	< 10 Mpa
Q_{Smax} (23°C):	160 Mpa
Leakage Rate ($Q_A=40$ MPa; 40 bar He):	10^{-4} mg/(s*m)
PQR @ 23 °C ($Q_A=30$ MPa):	0,96

ASTM F36

Compressibility:	50 %
compressed Thickness:	1 mm
Recovery:	15 %
recovered Thickness:	1,15 mm

Creep Relaxation (PQR), Leakage Rate and max. Gasket Stress (Q_{Smax}) are based on the European Test Standard for ring gaskets EN13555, determined using a 80mm skived ring, formed from 10x2mm tape.

Assembly

Completely clean the sealing surfaces. Remove any dirt, corrosion, oil, or leftover from old gasket materials.

Cut one ending of the gasketing using the skiving technique shown in Figure 1 >.

Remove just a little of the covering paper from the adhesive backing and position the tape at the center of the effective sealing width, placing the skive just next to a bolt hole on its pressure relating side. Fit the gasket tape around the entire flange circumference.

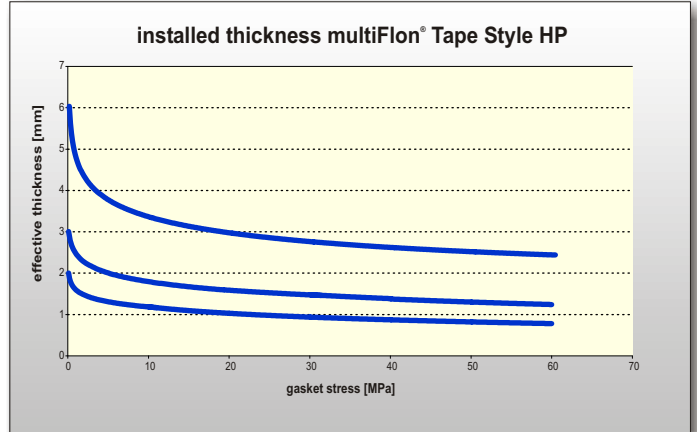
Lay the tape across the skive, completing with a second cut as shown in Figure 2 >, allowing the overlap length as required.

Horizontally cut off the excess, leaving a total thickness of approximately 120% of the original thickness.

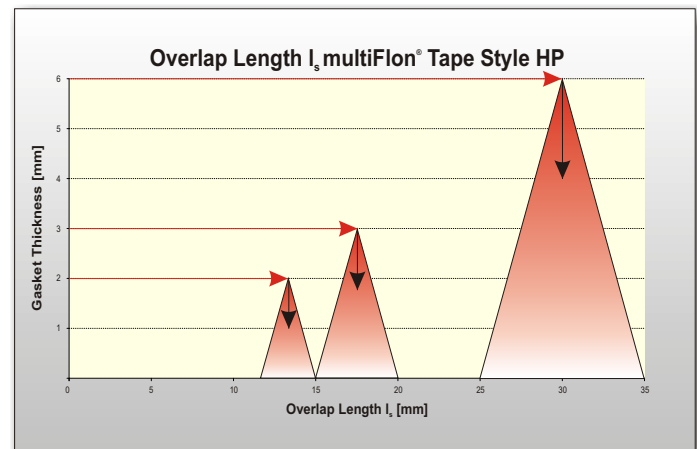
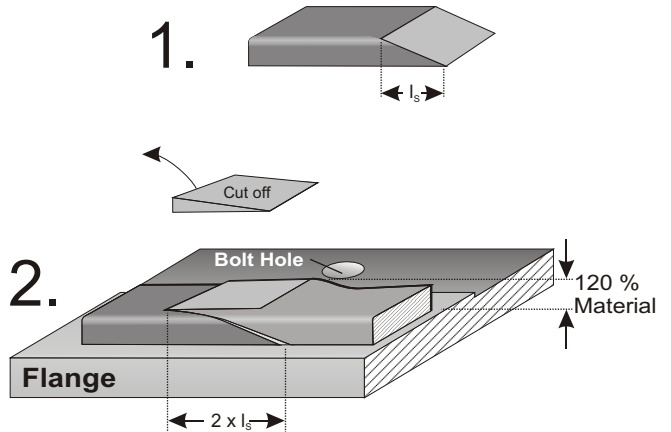
At least 3 progressive torque sequences in a star or 180° method should be used.

Lastly, perform a circular torque check to ensure a tight, long-lasting seal.

Gasket Characteristics



Assembly with skiving technique



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multiFlon Tape Style HP 170620 en

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Multidirectionally expanded PTFE



Multidirectional ePTFE Sheet Gasketing

multiFlon® ECO - Gasket Sheets are made from 100% pure multidirectionally expanded PTFE.

The high-quality PTFE resins, the gasket sheets consist of, provide an almost unlimited chemical resistance.

Typical for gaskets made from **multiFlon® ECO** sheets is the high level of compensating capability in terms of micro- and especially makro unevenness of the sealing surface. Leakage channels that may occur because of flange roughness or irregularities of used flanges can be sealed perfectly due to the high compressibility and adaptability of the gasket.

With **multiFlon® ECO** sheet gasketing you can cover a wide range of flange shapes and process equipment in demanding aggressive surroundings.

Typical Applications

Components

Large diameter standard flanges, piping systems, apparatus flanges, complex geometries

Flange Types

Steel flanges and high grade FRP components

Media

Highly aggressive chemicals, all media in food and pharma applications

Key Features

- made from pure multidirectionally expanded Teflon™ PTFE
- easy manufacture into all gasket shapes
- chemically inert (except for molten or dissolved alkali metals and elemental fluorine gas - please contact our technical service for questions)
- suitable for high temperatures
- highly compressible
- highly conformable to the sealing surface
- reliably tight and blow-out safe
- resistant to ageing
- reduces service and operating costs

Technical Data

Material

100 % pure multidirectionally expanded PTFE

Temperature Range of the material

-240°C up to +270°C, intermittent to +315°C

Chemical Resistance

resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures

Recommended Operating Range

Vacuum to 40 bar at -240°C to +230°C, depending on the individual application up to 200 bar

Tests and Certificates

TA-Luft (VDI 2440) up to 230°C and VDI 2290 @ 40bar He
BAM for gaseous and liquid Oxygen
FDA 21 CFR 177.1550 (PTFE)
EC 10/2011 (regulation for extraction limits)



Gasket Sheet ECO



Multidirectionally expanded PTFE

Available Standard Sizes

Type	Size [mm]	Thickness [mm]
multiFlon® ECO 05	1500 x 1500	0,5
multiFlon® ECO 10	1500 x 1500	1
multiFlon® ECO 15	1500 x 1500	1,5
multiFlon® ECO 20	1500 x 1500	2
multiFlon® ECO 30	1500 x 1500	3
multiFlon® ECO 60	1500 x 1500	6

other thickness on request

Properties

EN 13555 (2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)):	27 MPa
Q_{Smin} ($Q_s=30$ MPa; 40 bar He; L=0,01):	10 Mpa
Q_{Smax} (23°C):	160 Mpa
Leakage Rate ($Q_s=40$ MPa; 40 bar He):	$<10^{-4}$ mg/(s*m)
PQR @ 120 °C ($Q_s=30$ MPa):	0,94

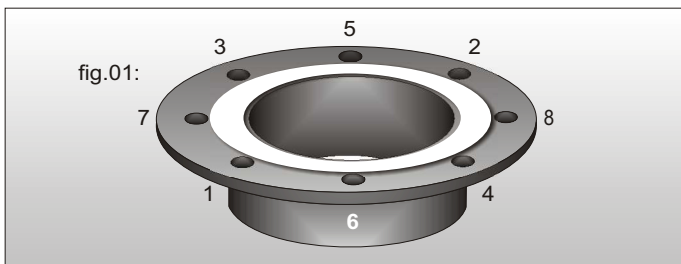
ASTM F36

Compressibility:	55 - 60 %
compressed Thickness:	0,80 mm
Recovery:	13 %
recovered Thickness:	0,90 mm

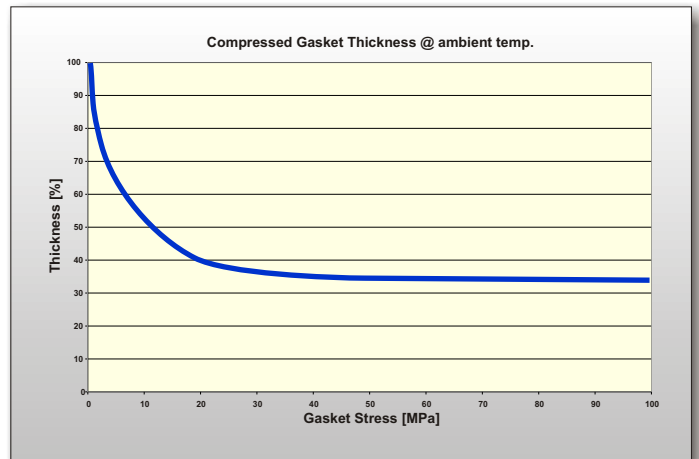
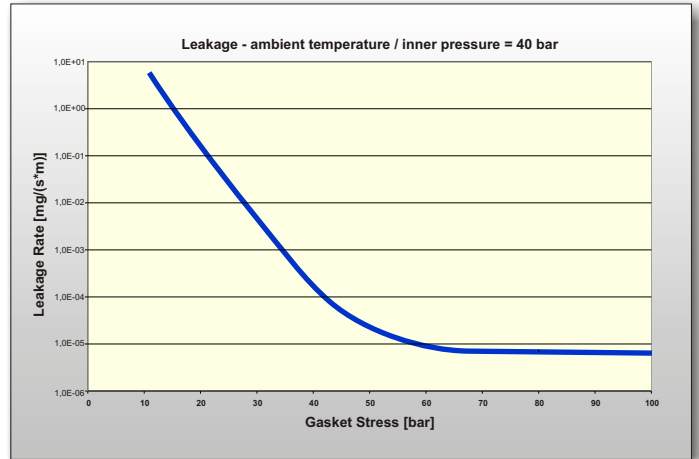
Due to a series of practical tests it appeared that the minimum required gasket stress during operation is generally lower than the minimal specified gasket stress according to EN 13555. Therefore in practice we calculate with $Q_{Smin} = 5$ Mpa at controlled assembly.

Choice Recommendation

- 1,5 mm thickness in new piping systems up to DN 300 / 12"
- 2 mm thickness in standard flanges with good sealing surface
- 3 mm thickness in flanges and flange-like joints with tolerable unevenness and roughness



Characteristics



Assembly

Clean sealing surface completely. Remove any dirt, corrosion, grease or left-over from old sealing materials.

Position gasket to the middle of the sealing surface and torque bolts hand-tight. At least 4 progressive torque sequences with a torque wrench should follow, until you reach the recommended gasket stress (follow sequence as shown in fig. 01).

Perform a circular torque check before start-up of the equipment.

Always follow the state-of-the-art guidelines for gasket assembly as well as the recommended torque for your sealing system.

If you need individual calculations for special equipment or non-standard gasket sizes contact our Technical Support.

All technical information and advice are based on our experience and are to the best of our knowledge, but do not state any liability by our company. Specifications and values must always be checked by the customers, for they are the only ones that can judge the efficiency of a product taking into account all of the on site operating conditions. For detailed selection criteria, technical assistance and installation guidelines contact our technical service.

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multiFlon sheet ECO 181223 en

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multiFlon® Gasket Sheet PRO

Multidirectionally expanded PTFE

Multidirectional ePTFE Sheet Gasketing

multiFlon® PRO - Gasket Sheets are made from 100% pure multidirectional ePTFE.

It consists solely of highest grade PTFE resins that offer an almost unlimited chemical resistance.

During installation, gaskets made from **multiFlon® PRO** sheets adapt perfectly to flange roughness, unevenness and usual irregularities of used flanges.

In service, stressed with temperature cycling and external forces, **multiFlon® PRO** keeps high gasket stress and forms an optimum thin gasket with high blow-out safety.

With **multiFlon® PRO** sheet gasketing you can cover a wide range of metal flange shapes in demanding aggressive surroundings.

For the use in high purity applications **multiFlon® PRO** GMP sheets with ink-free marking are available on request.



Typical Applications

Components

Large diameter standard flanges, piping systems, apparatus flanges, complex geometries

Flange Types

Steel flanges and high grade FRP components

Media

Highly aggressive chemicals, all media in food and pharma applications (**multiFlon® PRO** - Gasket Sheets are also available with embossed marking or unbranded, for highest demanding food and pharma applications)

Key Features

- made from pure multidirectionally expanded Teflon™ PTFE
- easy manufacture into all gasket shapes
- chemically inert (except for molten or dissolved alkali metals and elemental fluorine gas - please contact our technical service for questions)
- suitable for high temperatures
- highly compressible
- highly conformable to the sealing surface
- reliably tight and blow-out safe
- 100% resistant to ageing in the applicable range of use (see technical data)
- reduces service and operating costs

Technical Data

Material

100 % pure multidirectionally expanded PTFE

Temperature Range of the material

-240°C up to +270°C, intermittent to +315°C

Chemical Resistance

resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures

Recommended Operating Range

Vacuum to 40 bar at -240°C to +230°C, depending on the individual application up to 200 bar

Tests and Certificates

TA-Luft (VDI 2440) up to 230°C and VDI 2290 @ 40bar He BAM for gaseous and liquid Oxygen

Material conforming to:

FDA 21 CFR 177.1550 (PTFE)

EG1935 and relating regulations for extraction limits and GMP USP Class VI (not intended for implantation in the human body)



Gasket Sheet PRO



Multidirectionally expanded PTFE

Available Standard Sizes

Type	Size [mm]	Thickness [mm]
multiFlon® PRO 05	1500 x 1500	0,5
multiFlon® PRO 10	1500 x 1500	1
multiFlon® PRO 15	1500 x 1500	1,5
multiFlon® PRO 20	1500 x 1500	2
multiFlon® PRO 30	1500 x 1500	3
multiFlon® PRO 60	1500 x 1500	6

Properties

EN 13555 (2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)): 27 MPa
 Q_{Smin} ($Q_s=30$ MPa; 40 bar He; L=0,01): < 10 Mpa
 Q_{Smax} (23°C): 160 Mpa
 Leakage Rate ($Q_s=40$ MPa; 40 bar He): < 10^{-4} mg/(s*m)
 PQR @ 20 °C ($Q_s=30$ MPa): 0,94
 all Design Constants according to EN13555 are available at:
www.gasketdata.org

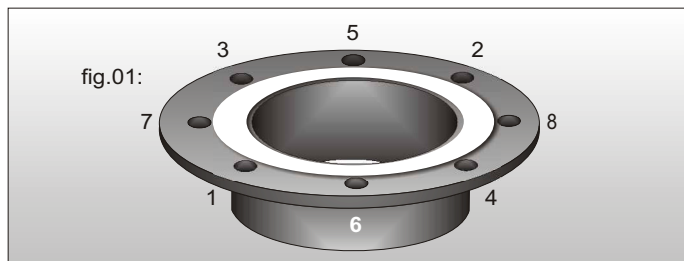
ASTM F36

Compressibility: 50 - 55 %
 compressed Thickness: 0,90 mm
 Recovery: 13 %
 recovered Thickness: 1,04 mm

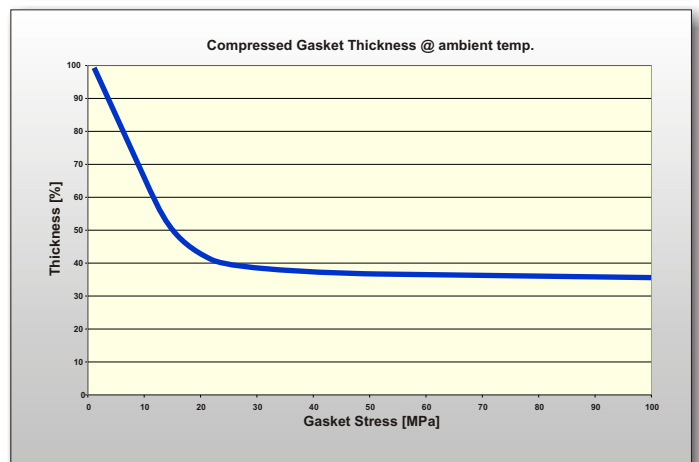
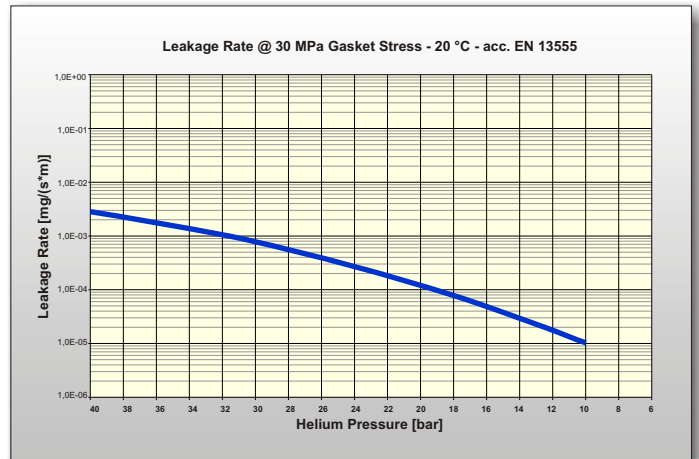
Due to a series of practical tests it appeared that the minimum required gasket stress during operation is generally lower than the minimal specified gasket stress according to EN 13555. Therefore in practice we calculate with $Q_{Smin} = 5$ Mpa at controlled assembly.

Choice Recommendation

- 1,5 mm thickness in new piping systems up to DN 300 / 12"
- 2 mm thickness in standard flanges with good sealing surface
- 3 mm thickness in flanges and flange-like joints with tolerable unevenness and roughness



Characteristics



Assembly

Clean sealing surface completely. Remove any dirt, corrosion, grease or left-over from old sealing materials.

Position gasket to the middle of the sealing surface and torque bolts hand-tight. At least 4 progressive torque sequences with a torque wrench should follow, until you reach the recommended gasket stress (follow sequence as shown in fig. 01).

Perform a circular torque check before start-up of the equipment.

Always follow the state-of-the-art guidelines for gasket assembly as well as the recommended torque for your sealing system.

If you need individual calculations for special equipment or non-standard gasket sizes contact our Technical Support.

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monoFlon® Sealant Overview

monodirectional ePTFE Gasket Tapes

Joint Sealant Style F ECO

ePTFE Joint Sealant with acrylic adhesive backing, on neutral spools
Material: 100% pure expanded PTFE with acrylic adhesive
Tests and Certificates: TÜV MUC-KSP-A066, DVGW VP403, BAM for gaseous Oxygen, FDA 21 CFR 177.1550 (PTFE), FDA 21 CFR 177.105 (adhesive)

Joint Sealant Style F PRO

ePTFE Joint Sealant with hotmelt adhesive backing, on neutral or branded spools
Material: 100% pure expanded PTFE with hotmelt adhesive
Tests and Certificates: Style F ECO compliances and EG 1935/2004 with EG 10/2011, Style F -GMP: EG2023/2006 (GMP marked)

ePTFE Cord Style R

round cross-section monodirectional ePTFE Sealing Cord, without adhesive, on neutral or branded spools
Material: 100% pure expanded PTFE without adhesive
Tests and Certificates: TÜV MUC-KSP-A066, Material meets FDA 21 CFR 177.1550 (PTFE) and EG 1935/2004 with EG 10/2011, Version Style R -GMP: EG2023/2006 (GMP marked)

Gasket Tape Style HD

high density ePTFE Sealant with hotmelt adhesive backing, on neutral or branded spools
Material: 100% pure expanded PTFE with hotmelt adhesive
Tests and Certificates: TÜV MUC-KSP-A066, FDA 21 CFR 177.1550 (PTFE), FDA 21 CFR 177.105 (adhesive) and EG 1935/2004 with EG 10/2011, Version Style HD -GMP: EG2023/2006 (GMP marked)

Gasket Tape Style KW

ePTFE Sealant with stabilizing filler and hotmelt adhesive backing, on neutral or branded spools
Material: 100% pure expanded PTFE with borosilicate glass
Tests and Certificates: Material meets FDA 21 CFR 177.1550 (PTFE), FDA 21 CFR 177.105 (adhesive)

Gasket Tape Style DB

flat, thin, form-in-place ePTFE gasketing material with full faced adhesive backing, on neutral or branded spools
Material: 100% pure expanded PTFE with acrylic adhesive
Tests and Certificates: Material meets FDA 21 CFR 177.1550 (PTFE), FDA 21 CFR 177.105 (adhesive)



Typical Applications

Components

expansion joints, machine housing, apparatus flanges, hand and manholes (for TRD 401 please contact our technical service)

Flanges

all types of flanges, large and complex geometries

Sealing Areas and Flange Materials

steel, aluminium, graphite, rubber lined components

Key Features

- 100 % pure monodirectional expanded PTFE (ePTFE)
- chemically inert
(for use with alkali metals and elemental fluorine ask our technical service)
- highly compressible
- easy and quick installation
- reliable and long lasting
- ideal for large and complex sealing surfaces
- reduces scrap and sealing costs
- PTFE fulfills fire classification V-0 according to UL94
- LOI LiquidOxygenIndex 95%
- Style F PRO -GMP meets the requirements for materials that are intended to come in contact with foodstuffs

expanded PTFE Joint Sealant

monoFlon® Joint Sealant Gasket Tape is made from 100% pure expanded PolyTetraFluoroEthylene (ePTFE).

The universal gasketing forms a thin, but yet strong, reliable gasket under compression, that is highly resistant to aggressive media and chemically inert.

Even for the sealing of large, complex and damaged flanges - just peel of the covering paper from the adhesive backing and stick the gasketing to the sealing surface - overlap the ending and close the jointing.

monoFlon® Style F - ECO is the economic sealing solution with self adhesive backing, for all standard applications.
monoFlon® Style F - PRO is equipped with a high performance hot melt adhesive that provides an ideal adhesion to the component surface and guards against needless contamination of the application.
monoFlon® Style F - PRO GMP fits to the high demands for food contact materials.
monoFlon® Style R has a round cross section and consists only of pure expanded PTFE without adhesive.

Technical Data

Material

100 % pure, virgin, expanded PTFE (ePTFE)

Temperature Resistance of the Sealing Material

-240°C to +270°C, intermittent to +315°C

Chemical Resistance

Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine

Pressure Range

Vacuum to 40 bar (580 psig)
depending on the installation parameters higher pressure can be achieved

Approvals and Safety

certified according to:

TÜV MUC-KSP-A066
DVGW VP 403

ECO complies with:

BAM for gaseous Oxygen
FDA 21 CFR 177.1550 (PTFE)
FDA 21 CFR 175.105 (adhesive)

PRO complies with:

ECO compliances &
EC1935/2004 - 10/2011 (PTFE and adhesive)

GMP complies with:

PRO compliances &
GMP (EC2023/2006)

Joint Sealant

Style F - PRO / GMP / ECO



Joint Sealant Sizes

Size [mm]	Standard Spool Lengths (others on request)			
	5 m	10 m	25 m	50 m
3 x 1,5			X	X
5 x 2			X	X
7 x 2,5			X	X
10 x 3		X	X	X
12 x 4		X	X	X
14 x 5		X	X	
17 x 6	X	X	X	
20 x 7	X	X	X	
25 x 5	X	X	X	
28 x 5	X	X		
Ø1 to Ø15	X	X	X	

Installation

Completely clean the sealing area and remove any dirt, corrosion, oil or leftover from old gasket material.

Cut one ending of the sealing tape and remove just a little of the protecting paper.

Place the tape at the nearest possible position next to the bolts, starting next to a bolt hole.

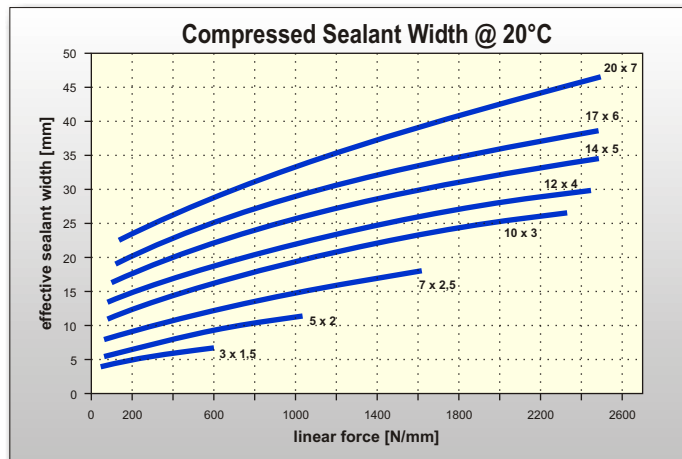
Fit the gasket around the entire flange circumference and cross the endings as shown in figure 1.

Assembled in fragile flanges apply techniques as shown in figure 2. Skive the endings as shown in fig. 3 and overlap according to the recommended overlap length. Cut off the excess, tapering to the end, leaving a total thickness of approx. 120 %.

At least 4 progressive torque sequences with a torque wrench, in a star of 180° (fig. 1), should follow the first torque by hand.

Lastly perform a circular torque to check and ensure a tight and long-lasting seal.

Characteristics



Assembly in standard jointings

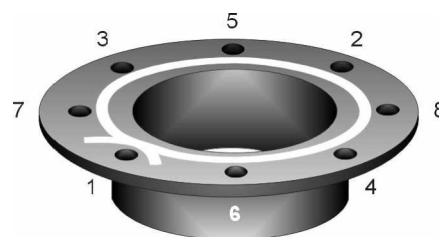


fig. 1

Assembly in fragile jointings

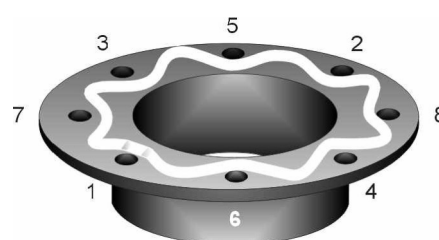


fig. 2

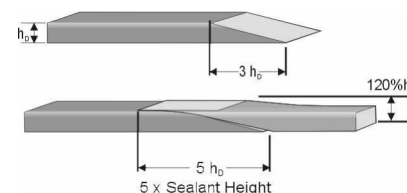


fig. 3

Assembly with skiving technique in fragile flanges and sizes > 17 x 6 mm

All technical information and advice are based on our experience and are to the best of our knowledge, but do not state any liability by our company. Specifications and values must always be checked by the customers, for they are the only ones that can judge the efficiency of a product taking into account all of the on site operating conditions.

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Joint Sealant Style F 190108 en

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Universal High Density ePTFE Gasket Tape

Style HD Gasket Tape is a higher density form-in-place gasketing, made from 100% pure monodirectionally expanded PTFE (ePTFE).

With its self-adhesive backing the tape can easily be installed also on vertical sealing surfaces.

Due to the special processing, the material has a uniform density over its cross section. Combined with the particular width-thickness-ratio the gasket tape provides a safe jointing, even in components with higher roughness and unevenness.

Its dense fibrous structure causes improved tightness, compared to standard monodirectionally expanded PTFE tapes, and makes **Style HD Gasket Tape** an alternative for higher demanding applications.

Typical Applications

Components

stirrers, columns, pumps, machine housings, glass- and graphite apparatus, lined containers, sight glasses, hand and manholes (for TRD401 applications please ask your technical service), air conditioning and ventilation systems

Flanges

steel and plastics flanges

Media

highly aggressive chemicals, all media in food and pharma applications

Key Features

- highly adaptable
- chemically inert
(for use with alkali metals and elemental fluorine ask our technical service)
- easy and quick installation
- highly tight
- broad field of application
- no "baking" to the flange
- easy to remove
- universal sizes - low stocking costs

Technical Data

Material

100 % pure, virgin, expanded PTFE (ePTFE)

Temperature Resistance of the Sealing Material

-240°C to +270°C, intermittent to +315°C

Chemical Resistance

Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine

Pressure Resistance

Vacuum to 250 bar
depending on the installation parameters

Approvals and Safety

Tested following TÜV Guideline MUC-KSP-A066
Material complies with: FDA 21 CFR 177.1550 (PTFE)
FDA 21 CFR 175.105 (adhesive)

Style HD

Gasket Tape

Tape Sizes and Spool Lengths

Size [mm]	Spool Length		
	10 m	25 m	50 m
3 x 0,3		X	X
3 x 0,7		X	X
4 x 1,5		X	X
4 x 2,5		X	X
6 x 4,5		X	X
8 x 5,5		X	X
10 x 7	X	X	

Installation

Completely clean the sealing area and remove any dirt, corrosion, oil or leftover from old gasket material.

With HD Gasket Tapes >3 mm width always apply skiving technique (see fig.1. >).

Cut one ending of the sealing tape and remove just a little of the protecting paper.

Place the tape at the nearest possible position next to the bolts, starting next to a bolt hole.

Fit the gasket around the entire flange circumference and close the endings as shown in figure 1 >.

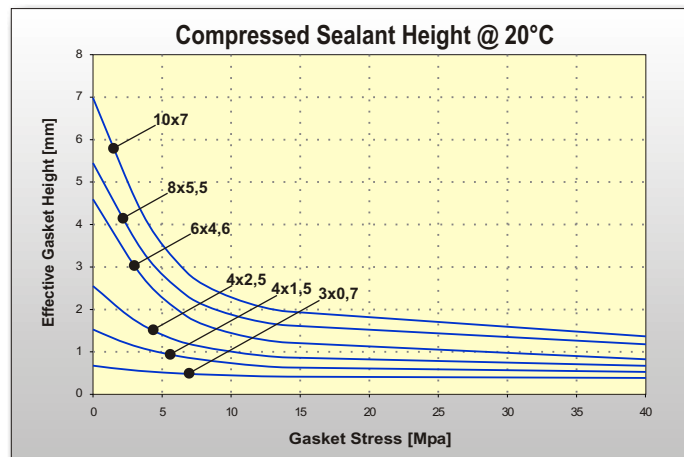
Overlap and skive the endings according to the recommended overlap length. Cut off the excess, tapering to the end, leaving a total thickness of approx. 120 %.

Cross the endings as shown in figure 2 only with HD-Tape 3 x 0,3 mm and 3 x 0,7 mm.

At least 4 progressive torque sequences with a torque wrench, in a star of 180° (fig. 2), should follow the first torque by hand.

Lastly perform a circular torque to check and ensure a tight and long-lasting seal.

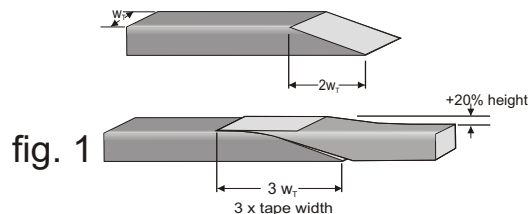
Reduction in height



Choice Recommendation

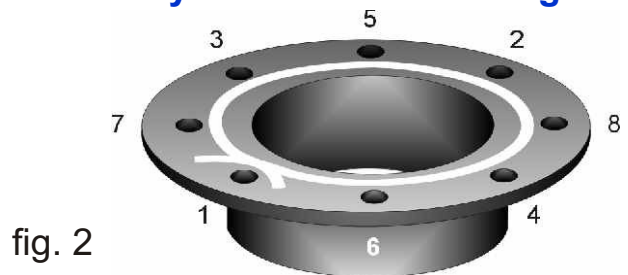
Size [mm]	Sealing Area
3 x 0,3	width 3 mm
3 x 0,7	width 3 mm
4 x 1,5	width < 15 mm
4 x 2,5	< DN 500
6 x 4,5	< DN 1000
8 x 5,5	< DN 1500
10 x 7	> DN 1500

Assembly with skiving technique



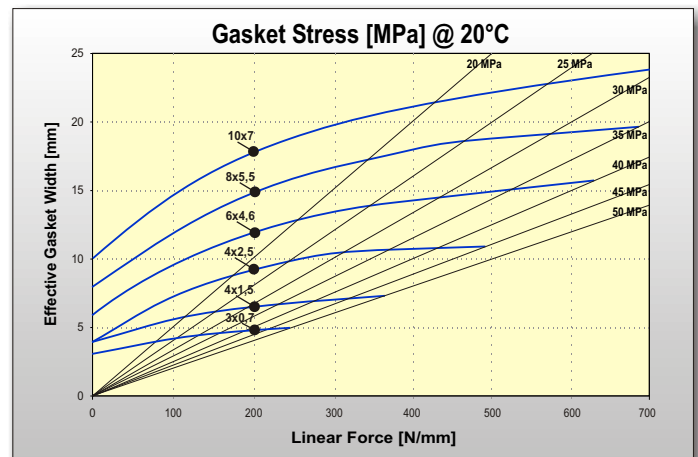
> HD Gasket Tape 3 x 0,7 mm always apply skiving cut.

Assembly with crossed endings



Install HD Gasket Tape 3 x 0,3 and 3 x 0,7 mm with crossed endings!

Increase in width





"The Power Plant Tape" - reinforced ePTFE-Tape -

Style KW - Gasket Tape consists of high density expanded PTFE, reinforced with inorganic fillers.

Due to the special treatment the material is very homogenous. The high grade borosilicate glass filler is highly resistant to current chemicals and makes **Style KW** an ideal gasket even in the higher pH range.

The filled ePTFE has much better sealing and creep characteristics at higher temperatures, compared to standard monodirectional ePTFE Sealing Materials - specifically on flanges with higher unevenness.

The dense fibrous structure of **KW Gasket Tape** gives the material lower cross-sectional porosity and with this better sealing characteristics.

For easy installation the gasketing has an adhesive backing and can also be assembled on vertical sealing surfaces.

Typical Applications

Components

specifically for components in caloric power plants, like pre-heaters or other heat exchangers, also with higher unevenness or corroded sealing surfaces

Flanges

steel flanges

Media

suitable for the sealing of pipeline and apparatus flanges with aggressive media in the range of pH 1 to 12

Key Features

- highly adaptable
- chemically inert from pH 1 to 14
(for use with alkali metals and elemental fluorine ask our technical service)
- easy and quick installation
- highly tight
- broad field of application
- no "baking" to the flange
- easy to remove
- universal sizes - low stocking costs

Technical Data

Material

virgin expanded PTFE (ePTFE) with inorganic filler

Temperature Resistance of the Sealing Material

-240°C to +270°C, intermittent to +315°C

Chemical Resistance

Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine

Recommended Application Range

full vakuuum to 25 bar
at -200°C to +250°C

Style KW

Tape Sizes and Spool Lengths

Size [mm]	Spool Length		
	10 m	25 m	50 m
6 x 2,5		X	X
8 x 3,5	X	X	X
10 x 5	X	X	X

Choice Recommendation

Size [mm]	Sealing Surface
6 x 2,5	< DN 500
8 x 3,5	DN 500 bis DN 1000
10 x 5	> DN 1000

Assembly with skiving technique

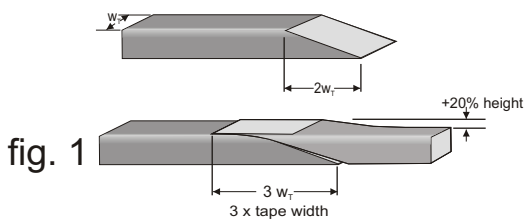


fig. 1

Torque Sequence

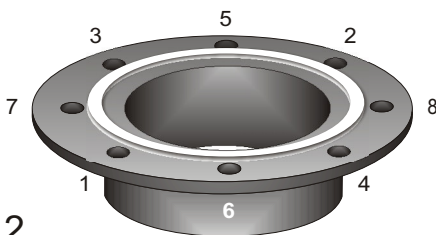
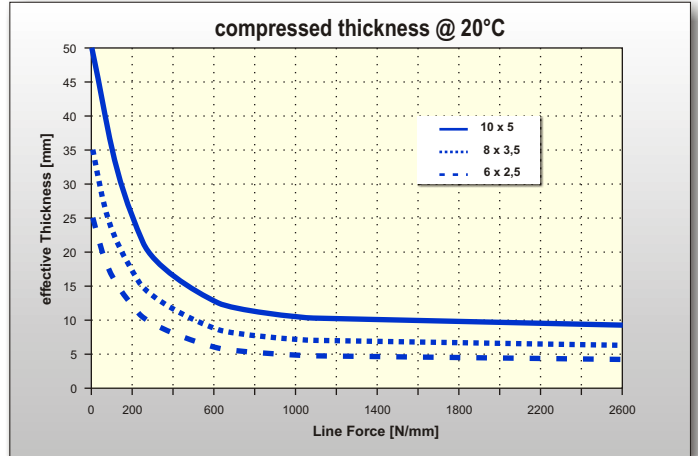


fig. 2

Characteristics



Installation

Completely clean the sealing area and remove any dirt, corrosion, oil or leftover from old gasket material.

With KW-Gasket Tapes always apply skiving technique (see fig. 1).

Cut one ending of the sealing tape and remove just a little of the protecting paper.

Place the tape at the nearest possible position next to the bolts, starting next to a bolt hole.

Fit the gasket around the entire flange circumference and close the endings as shown in figure 1.

Overlap and skive the endings according to the recommended overlap length. Cut off the excess, tapering to the end, leaving a total thickness of approx. 120 %.

At least 4 progressive torque sequences with a torque wrench, in a star of 180° (fig. 2), should follow the first torque by hand.

Lastly perform a circular torque to check and ensure a tight and long-lasting seal.

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KW Gasket Tape en 141217



Benefits

- universal use
- even for low gasket stress
- easily to install and remove
- reduces total costs

Key Features

- made of 100% pure expanded PTFE
- chemically inert (for use with alkali metals and elemental fluorine ask our technical service)
- conforms to flange unevenness
- good creep and cold flow resistance
- easy to install and remove
- outstanding versatility
- no wasteful scrap

Available Sizes

Standard nominal Thickness

0,25 mm
0,5 mm
1 mm

Standard nominal Width

10 mm
15 mm
20 mm
25 mm
50 mm

Universal ePTFE Gasket Tape with full-face adhesive

Style DB - Gasket Tape is a flat, thin, form-in-place expanded PTFE gasketing material.

It can be used to form a full-face gasket for either smooth, flat, rectangular sealing surfaces or for narrow sealing surfaces.

Style DB - Gasket Tape easily compresses into an extremely thin profile, and requires only minimal compression to seal.

Style DB - Gasket Tape is an ideal choice when compressed thickness is critical, and perfect for equipment with tight tolerances.

Available in a variety of widths and thickness, this gasketing can be shaped easily and quickly, on site, without precutting, to fit any ring-type or full-face gasket application.

Style DB - Gasket Tape, with FDA conforming self-adhesive backing, can be used anywhere a flat, thin, engineered gasket is needed.

Technical Data

Material

100 % pure, virgin, expanded PTFE (ePTFE)

Temperature Resistance of the Sealing Material

-240°C to +270°C, intermittent to +315°C

Chemical Resistance

Chemical resistance to all media pH 0 to 14, except molten alkali metals and elemental fluorine

Resistance to Ageing

in the permissible range of applications there is no ageing of **Style DB** - Gasket Tape. Depending on stocking conditions the adhesive force of the backside glue can change.

Physiological Safety

Material complies with: FDA 21 CFR 177.1550 (PTFE)
FDA 21 CFR 175.105 (adhesive)

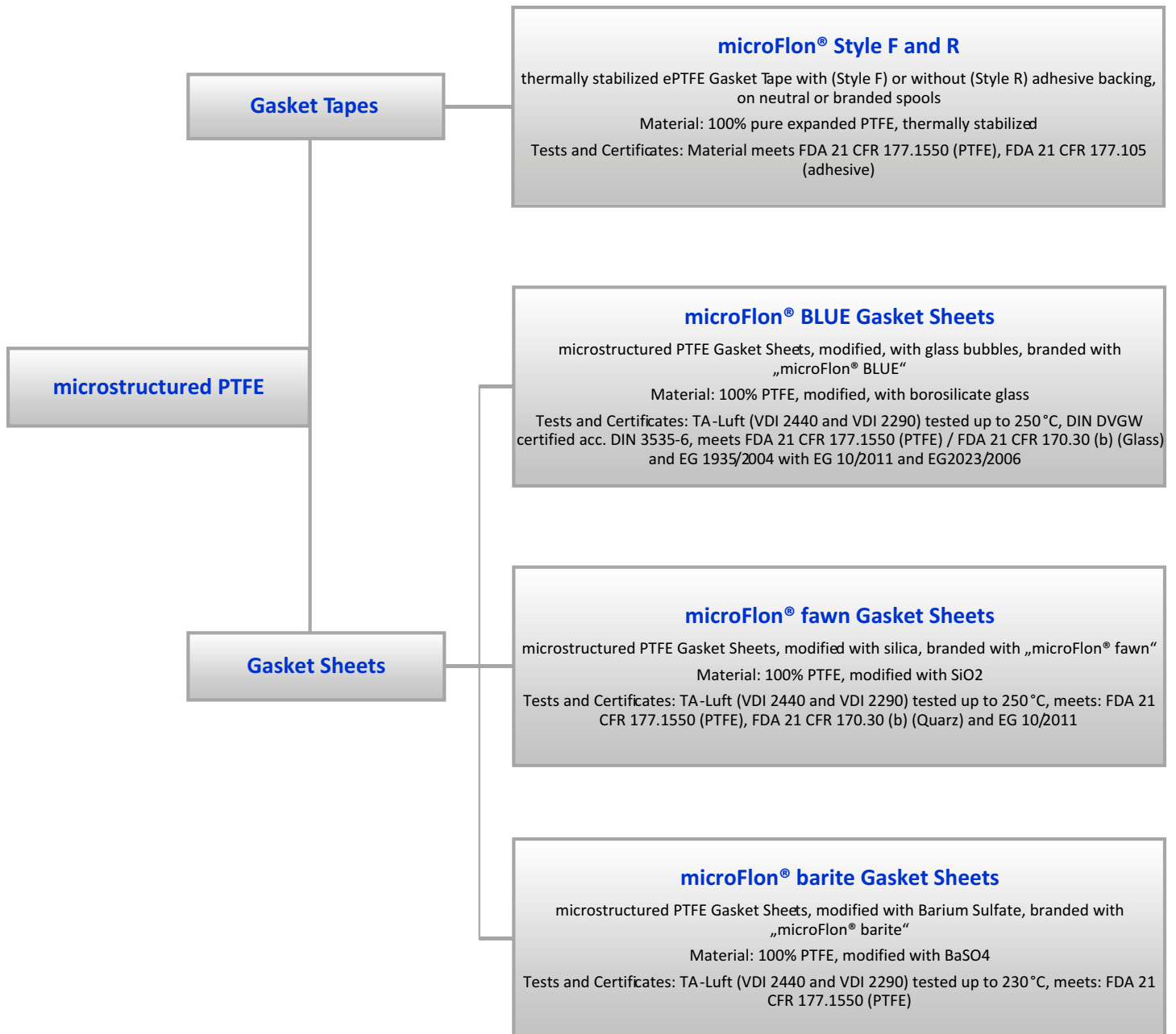
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DB Gasket Tape en 141216

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 **FluorTex**
Polymer Technology

microFlon® Sealant Overview



Style F Tape and Style VP Cord



Thermally stabilized ePTFE Gasket Tape and Cord

microFlon® Style F and Style VP are microcellular ePTFE gasket tapes and cords that mark a high quality and efficient gasket especially in unconventional installation situations.

microFlon® Style VP is a non-adhesive and silicone free round cord which is flexible and adaptive. By the thermal stabilisation of the ePTFE-molecules **microFlon®** offers enhanced creep properties and substantially lower shrinkage than conventional monidirectionally expanded PTFE.

microFlon® Style F is equipped with a self adhesive backing and is designed for vertical and overhead applications.

Typical Applications

Components

large pipe flanges, flue gas scrubbers, lined vessels, manhole covers (not TRD401) and vessel openings, valve hoses and slides as well as low-speed stirrers and pumps

Flanges

steel and plastics flanges

Media

highly aggressive chemicals, all media in food and pharma applications

Key Features

- 100 % pure expanded PTFE (ePTFE)
- high chemical resistance
- compressible and adaptive
- thermally stabilized
- reliable sealing
- low diffusion rates
especially when in contact with aqueous media
- no unnecessary material waste at manufacturing

Technical Data

Material

100 % pure expanded PTFE, thermally stabilized

Temperature Range of the material

-240°C bis +270°C, intermittent to +315°C

Chemical Resistance

resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine

Recommended Operating Range*

Vakuum up to 10 bar at -240°C to +250°C

Tests and Certificates

Material conforming to: FDA 21 CFR 177.1550 (PTFE)
FDA 21 CFR 175.105 (adhesive)

* depending on the individual assembly

Style F Tape and Style VP Cord

Standard Sizes and Spool Lengths

Size [mm]	Spool Length [mm]		
	10 m	15 m	25 m
9 x 3		X	X
14 x 3	X	X	X
19 x 3	X	X	X
Ø 5	X	X	X
Ø 6	X	X	X
Ø 8	X	X	X
Ø 10	X	X	X
Ø 12	X	X	X

Properties

DIN EN 13555

Q_{min} (40 bar He; 0,01 mg/(s*m)):	26 MPa
Q_{Smin} ($Q_s=30$ MPa; 40 bar He; L=0,01):	< 10 Mpa
Q_{Smax} (23°C):	> 180 Mpa
Leakage rate ($Q_s=40$ MPa; 40 bar He):	< 10^{-3} mg/(s*m)

ASTM F36

Compressibility:	65 %
Recovery:	10 %

Assembly of self adhesive Tapes

Completely clean the sealing surfaces. Remove any dirt, corrosion, oil, or leftover from old gasket materials.

Cut one ending of the gasketing using the skiving technique shown in Figure 1 a).

Remove just a little of the covering paper from the adhesive backing and position the tape at the center of the effective sealing width, placing the skive just next to a bolt hole on its pressure relating side. Fit the gasket tape around the entire flange circumference.

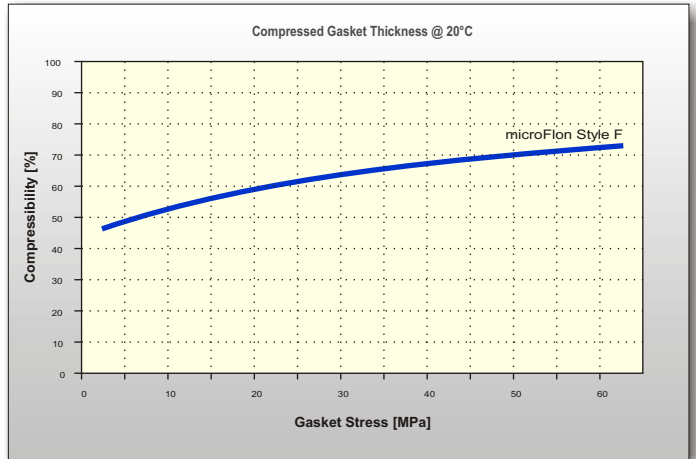
Lay the tape across the skive, completing with a second cut as shown in fig. 1 b), allowing the overlap length as required

Horizontally cut off the excess, leaving a total thickness of approximately 120% of the original thickness.

At least 4 progressive torque sequences with a torque wrench, in a star of 180° (fig. 2), should follow the first torque by hand.

Lastly, perform a circular torque check to ensure a tight, long-lasting seal.

Gasket Characteristics



Assembly with skiving technique

fig. 1

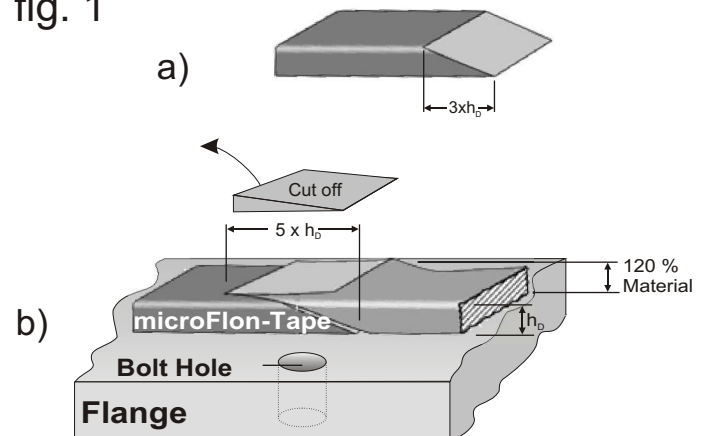
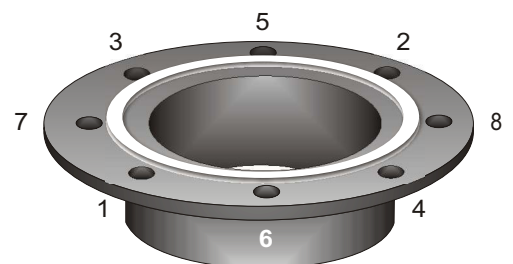


fig. 2



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microFlon Style F and VP en 181217

Reinforced PTFE Gasket Sheet



The reliable gasketing for chemical plants

microFlon® BLUE is the new generation of microstructured, reinforced PTFE gasketing materials.

Due to the very homogenous distribution of hollow glass microspheres, **microFlon® BLUE** gets its uniform density and a high adaptability.

It assimilates to flange roughness and unevenness, applying just low gasket stress, and reduces surface diffusion to the minimum.

Even at increased temperatures **microFlon® BLUE** shows its advantages. Low compressive creep and high stableness lead to a reliable jointing.

With this **microFlon® BLUE** is the optimum PTFE gasketing for all flanges with slightly damaged surfaces, distorted flanges, or fragile components.

Typical Applications

Components

piping systems, apparatus flanges, also with reduced gasket stress or damaged surface

Flanges

steel, metal alloy, glass, ceramics or plastics flanges, glass lined and rubber lined piping systems

Media

highly aggressive media, except for molten alkali metals and fluorine gas.

Key Features

- microstructured PTFE with inorganic filler
- high compressibility and adaptability
- chemically inert (except for molten or dissolved alkali metals
and elemental fluorine gas - please contact our technical service for questions)
- suitable for high temperature applications up to +250 °C
- resistant to "cold flow"
- high recovery
- highly tight, already at low gasket stress
- easy to remove
- does not stick to the flange surface



Technical Data

Material

100 % virgin PTFE, with hollow glass microspheres

Temperature Range of the material

-210°C to +270°C, intermittent to +315°C

Chemical Resistance

resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures

Recommended Operating Range

Vacuum up to 55 bar, from ambient to +250°C
(also in combination, up to 40 bar @ 200°C*)

Tests and Certificates

TA-Luft (VDI 2440) up to 250 °C
FDA 21 CFR 177.1550 (PTFE) and 21 CFR 170.30(b) (Glass)
Extraction Limits according 21 CFR 177.1550 § (e)(3)
and EG1935 / EG10-2011
DVGW tested and certified according DIN 3535-6 : 2011-01

BLUE

microFlon®

Reinforced PTFE Gasket Sheet

Standard Sizes

Type	Size [mm]	Thickness [mm]
microFlon® BLUE 05	1500 x 1500	0,5 mm
microFlon® BLUE 08	1500 x 1500	0,8 mm
microFlon® BLUE 10	1500 x 1500	1 mm
microFlon® BLUE 15	1500 x 1500	1,5 mm
microFlon® BLUE 20	1500 x 1500	2 mm
microFlon® BLUE 30	1500 x 1500	3 mm

Properties

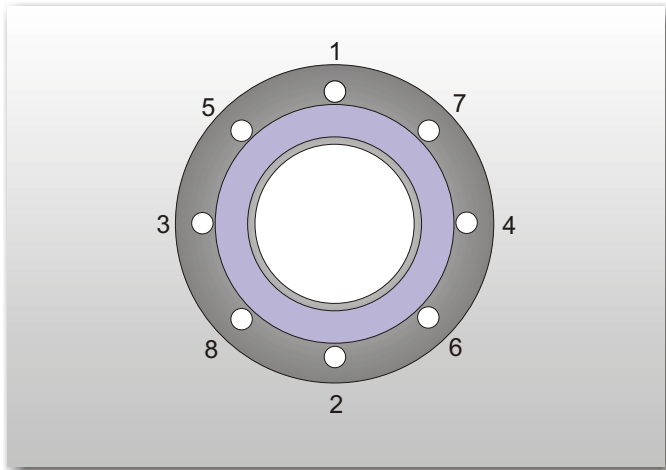
EN 13555 (2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)):	< 15 MPa
Q_{Smin} ($Q_s=40$ MPa; 40 bar He; L=0,01):	< 5 MPa
Leakage Rate ($Q_s=30$ MPa; 40 bar He); PQR @ 150 °C:	< 10^{-4} mg/(s*m) 0,45

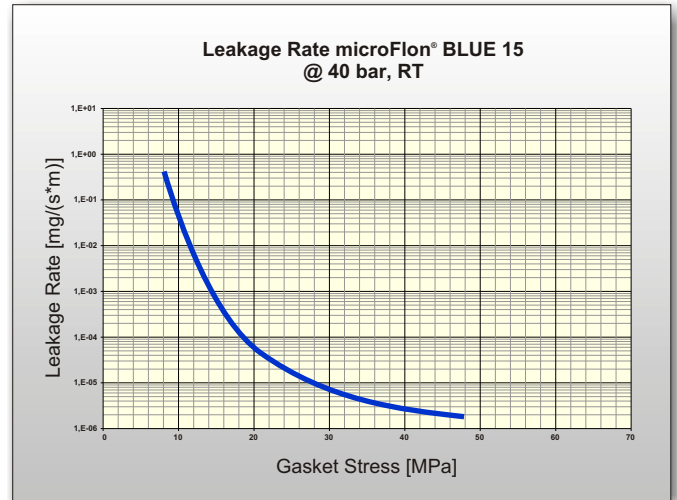
ASTM F36

Compressibility:	25 - 30 %
compressed Thickness:	1,45 mm
Recovery:	35 %
recovered Thickness:	1,64 mm

Density: 1,7 g/cm³



Sealing Characteristics



Even at low gasket stress **microFlon® BLUE** shows very good sealing properties.

Assembly

Clean sealing surface completely. Remove any dirt, corrosion, grease or left-over from old sealing materials.

Center gasket on the sealing surface and torque bolts hand-tight.

At least 4 progressive torque sequences with a torque wrench should follow, until you reach the recommended gasket stress.

Always torque crosswise as shown in the sketch (see left).

Perform a circular torque check before start-up of the equipment.

Always follow the state-of-the-art guidelines for gasket assembly as well as the recommended torque for your sealing system.

If you need individual calculations for special equipment or non-standard gasket sizes contact our Technical Support.

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 **FluorTex**
Polymer Technology

Reinforced PTFE Gasket Sheet



universal microstructured filled PTFE Gasketing

microFlon® fawn is the universal PTFE gasket for chemical and petrochemical industries.

Due to the silica reinforcement **microFlon® fawn** has an excellent creep resistance and good relaxation factors, even at higher temperatures.

The very dense and uniform structure makes it the ideal gasket for high demands in emission control.

Even at low torque and applicable operating gasket stress, **microFlon® fawn** offers reliable safety and lowest leakage rates.

Typical Applications

Components

Piping systems, apparatus flanges, temperature stressed components

Flange Types

Steel flanges

Media

Highly aggressive chemicals, all media in chemical and petrochemical applications

Key Features

- 100 % virgin PTFE reinforced with inorganic filler
- good stability at thermal stress
- chemically inert (except for molten or dissolved alkali metals and elemental fluorine gas - please contact our technical service for questions)
- suitable for high temperatures applications up to +230 °C
- resistant to "cold flow"
- high recovery
- good electrical properties
- resistant to ageing

Technical Data

Material

100 % virgin PTFE, filled with inorganic silica

Temperature Range of the material

-210°C to +260°C

Chemical Resistance

resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures

Recommended Operating Range

Vacuum up to 55 bar, from ambient to +230°C (also in combination, up to 40 bar*)

Tests and Certificates

tested according to TA-Luft (VDI 2440) up to 250 °C and VDI 2290 @ 23 °C and 40 bar

* depending on the individual assembly

fawn

microFlon®

Reinforced PTFE Gasket Sheet

Standard Sizes

Type	Size [mm]	Thickness [mm]
microFlon® fawn 05	1500 x 1500	0,5 mm
microFlon® fawn 10	1500 x 1500	1 mm
microFlon® fawn 15	1500 x 1500	1,5 mm
microFlon® fawn 20	1500 x 1500	2 mm
microFlon® fawn 30	1500 x 1500	3 mm

Properties

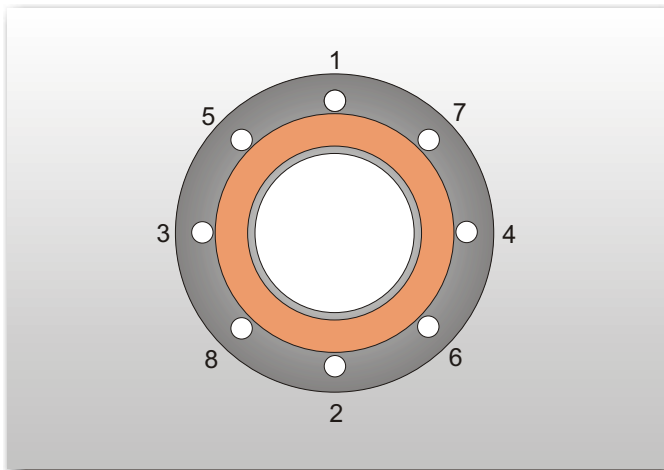
EN 13555 (2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)): 12 MPa
 Q_{Smin} ($Q_A=40$ MPa; 40 bar He; L=0,01): < 10 MPa
 Leakage Rate ($Q_A=40$ MPa; 40 bar He): < 10^{-6} mg/(s*m)
 PQR @ 160 °C: 0,46

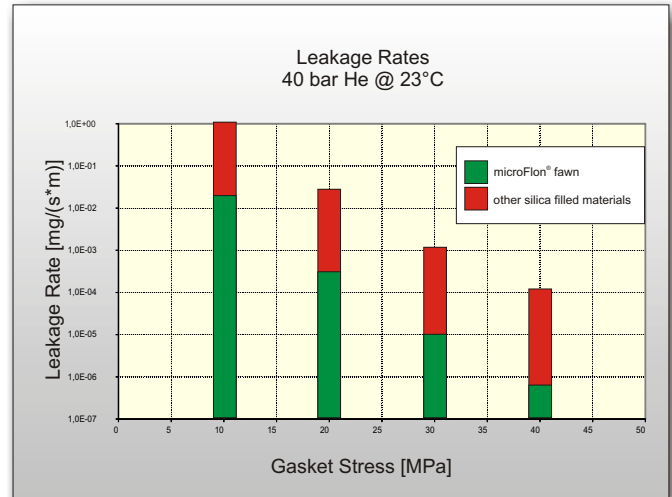
ASTM F36

Compressibility: 15 %
 compressed Thickness: 1,68 mm
 Recovery: 20 %
 recovered Thickness: 1,75 mm

Density: 2,2 g/cm³



Leakage Characteristics



At applicable gasket stress in DIN flanges, **microFlon® fawn** gaskets offer 100 times lower leakage rates than comparable competitors materials (Q_{min} values according EN 13555).

Assembly

Clean sealing surface completely. Remove any dirt, corrosion, grease or left-over from old sealing materials.

Center gasket on the sealing surface and torque bolts hand-tight.

At least 4 progressive torque sequences with a torque wrench should follow, until you reach the recommended gasket stress.

Always torque crosswise as shown in the sketch (see left).

Perform a circular torque check before start-up of the equipment.

Always follow the state-of-the-art guidelines for gasket assembly as well as the recommended torque for your sealing system.

If you need individual calculations for special equipment or non-standard gasket sizes contact our Technical Support.

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microFlon® barite

Reinforced PTFE Gasket Sheet



microstructured reinforced PTFE Gasketing

microFlon® barite is a sintered PTFE gasketing material with a chemically highly resistant filler, which is mainly used for applications in the chemical industrie.

Finely distributed barium sulphate gives **microFlon® barite** an enhanced resistance to cold flow as well as good relaxation properties.

Due to the high chemical resistance of the filler **microFlon® barite** can be exposed to a wide range of aggressive media.

Typical Applications

Components

piping systems, apparatus flanges

Flanges

steel flanges or other metallic flange systems

Media

strong alkalis, weak acids, chlorine, usual media in chemical and petrochemical applications

Key Features

- 100 % pure PTFE with inorganic filler
- chemically inert (except for molten or dissolved alkali metals and elemental fluorine gas - please contact our technical service for questions)
- suitable for strong alkalis
- inhibited against "cold flow"
- high recovery
- good electrical properties
- resistant to age

Technical Data

Material

100 % virgin PTFE, reinforced with barium sulphate

Temperature Range of the material

-210°C to +260°C

Chemical Resistance

resistant to all media in the range of pH 0 to 14, except for molten and dissolved alkali metals and elemental fluorine gas at high temperatures and pressures

Recommended Operating Range*

Vacuum up to 40 bar, from -100 °C to +200 °C

Tests and Certificates

TA-Luft (VDI 2440) up to +230 °C
VDI 2290 at 23 °C and 40 bar

* depending on the individual conditions of installation

barite

microFlon®

Reinforced PTFE Gasket Sheet

Standard Sizes

Typ	Größe [mm]	Dicke [mm]
microFlon® barite 08	1500 x 1500	0,8 mm
microFlon® barite 10	1500 x 1500	1 mm
microFlon® barite 15	1500 x 1500	1,5 mm
microFlon® barite 20	1500 x 1500	2 mm
microFlon® barite 30	1500 x 1500	3 mm

Properties

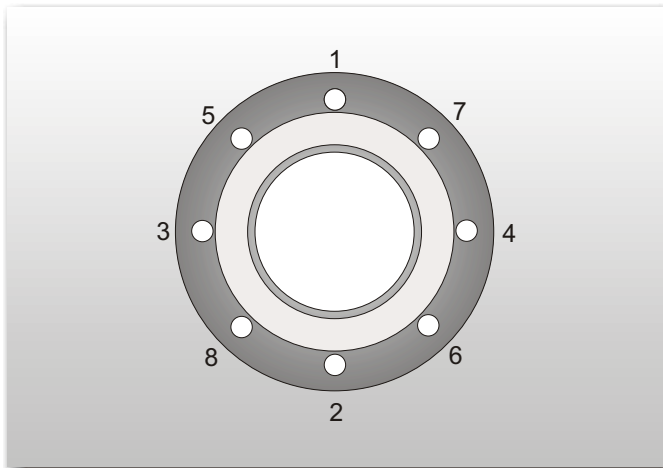
EN 13555 (2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)): 15 MPa
 Q_{Smin} ($Q_s=30$ MPa; 40 bar He; L=0,01): < 10 MPa
Leakage Rate ($Q_s=30$ MPa; 40 bar He): < 10^{-4} mg/(s*m)
PQR @ 120 °C ($Q_s=30$ MPa): 0,6

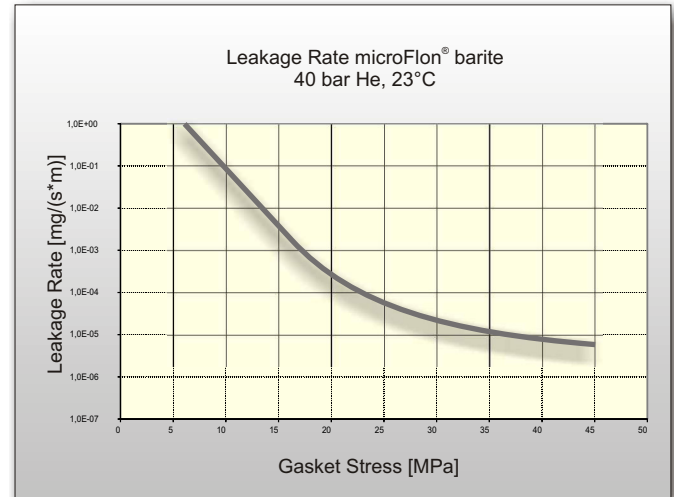
ASTM F36

Compressibility: 7 %
Compressed thickness: 1,87 mm
Recovery: 40 %
Recovered thickness: 1,92 mm

Density: 2,8 g/cm³



Sealing Characteristics



Even at low gasket stress **microFlon® barite** shows very good sealing properties.

Assembly

Clean sealing surface completely. Remove any dirt, corrosion, grease or left-over from old sealing materials.

Center gasket on the sealing surface and torque bolts hand-tight.

At least 4 progressive torque sequences with a torque wrench should follow, until you reach the recommended gasket stress.

Always torque crosswise as shown in the sketch (see left).

Perform a circular torque check before start-up of the equipment.

Always follow the state-of-the-art guidelines for gasket assembly as well as the recommended torque for your sealing system.

If you need individual calculations for special equipment or non-standard gasket sizes contact our Technical Support.

All technical information and advice are based on our experience and are to the best of our knowledge, but do not state any liability by our company. Specifications and values must always be checked by the customers, for they are the only ones that can judge the efficiency of a product taking into account all of the on site operating conditions. For detailed selection criteria, technical assistance and installation guidelines contact our technical service.

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 **FluorTex**_{GmbH}
Polymer Technology

monoFlon® extruded lubricated PTFE

extruded PTFE

PTFE Extrudate

Monodirectional PTFE Extrudate with pure USDA H1 oil
Highest grade quality, on neutral or branded spools

Material: 100% pure virgin PTFE with pure H1 approved, USDA lubricant

Tests and Certificates: Conforming to FDA 21 CFR 177.1550 (PTFE) and FDA 21 CFR 178.3570 - USDA H1 approved (lubricant)



Lubricated PTFE Extrudate for stuffing boxes and shafts

PTFE Extrudate Style P - Packing consists of virgin PTFE and a highly pure lubricant.

In the **FluorTex** manufacturing process a very dense packing with a fibre orientation is produced.

The addition of a highly pure NSF/H1 lubricant causes minimum valve stem friction and maximizes pump shaft speed at reduced fugitive emissions.

With its composition **PTFE Extrudate Style P** provides excellent conformability to any irregularities in the outer diameter of the stuffing box and makes it an excellent packing for low speed valve, pump and mixer applications.

Applications

- packings for pumps, valves, gate valves, stirrers and mixers (low speed)
- static seal applications

Sizes and Lengths

PTFE Extrudate Style P - round cross-section

Item Number	Diameter [mm]	Length [m]
11900010	1	25 50
11900015	1,5	25 50
11900020	2	25 50
11900025	2,5	25 50
11900030	3	25 50
11900040	4	25 50
11900050	5	25 50
11900060	6	25 50
11900070	7	10 25
11900080	8	10 25
11900100	10	10 25
11900120	12	10 25
11900150	15	5 10
11900160	16	5 10

Other lengths and sizes (e.g. rectangular cross-section) are available on request.

Technical Data

Material

100 % pure, virgin, PTFE with NSF/H1 lubricant (FDA type)

Temperature Resistance

for FDA applications:

-100°C to +120°C, intermittent to +150°C

for non-FDA applications:

-100°C to +200°C, intermittent to +230°C

Chemical Resistance

Chemical resistance to most gaseous or liquid chemicals, from pH 0 to 14, except molten alkali metals and elemental fluorine

Resistance to Ageing

in the permissible range of applications there is no ageing of **PTFE Extrudate Style P** - Packings. Depending on stocking conditions the lubricant content may change.

Physiological Safety

Material certified as FDA conforming complies with:
 FDA 21 CFR 177.1550 (PTFE)
 FDA 21 CFR 178.3570 (lubricant)

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 Extrudate en 170814

multidirectional ePTFE

FluorTex GmbH	W.L. Gore & Associates GmbH	Teadit	Garlock GmbH	Flexitallic Ltd
multiFlon® Tape	Gore® Gasket Tape Series 600	Teadit® 25 BI	--	--
multiFlon® Tape GMP	--	--	--	--
multiFlon® Tape Style HP-GMP	Gore® Gasket Tape Series 500	--	--	--
multiFlon® ECO Sheet Gasketing	--	--	--	--
multiFlon® PRO Sheet Gasketing	Gore® GR Sheet Gasketing	Teadit® 24 SH	--	--
multiFlon® GMP Sheet Gasketing	Gore® STA-PURE® Sheet Gasketing	Teadit® 24 SH	--	--

monodirectional ePTFE

FluorTex GmbH	W.L. Gore & Associates GmbH	Teadit	Garlock GmbH	Flexitallic Ltd
Joint Sealant Style F ECO	--	--	--	Fluoroseal Joint Sealant Tape
Joint Sealant Style F PRO	Gore® Joint Sealant	Teadit® 24 B	--	--
Joint Sealant Style F PRO-GMP	--	--	--	--
ePTFE Cord Style R	--	--	--	--
ePTFE Cord Style R-GMP	--	--	--	--
Gasket Tape Style HD	--	Teadit® 24 HD	--	--
Gasket Tape Style HD-GMP	--	--	--	--
Gasket Tape Style KW	--	--	--	--
Gasket Tape Style DB	Gore® Joint Sealant FT	Teadit® 24 BB	--	--

microstructured PTFE

FluorTex GmbH	W.L. Gore & Associates GmbH	Teadit	Garlock GmbH	Flexitallic Ltd
microFlon® Style F and R	--	--	--	--
microFlon® BLUE Gasket Sheets	--	Teadit® TF 1570	Gylon® Style 3504	Flexitallic Sigma 500
microFlon® fawn Gasket Sheets	--	Teadit® TF 1590	Gylon® Style 3500	Flexitallic Sigma 511
microFlon® barite Gasket Sheets	--	Teadit® TF 1580	Gylon® Style 3510	Flexitallic Sigma 533

extruded PTFE

FluorTex GmbH	W.L. Gore & Associates GmbH	Teadit	Garlock GmbH	Flexitallic Ltd
PTFE Extrudate	--	--	--	--