

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

multiFlon®

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.

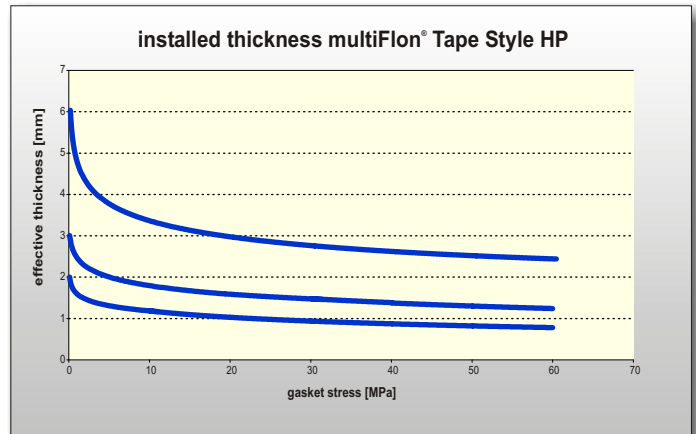
Lay the tape across the skive, completing with a second cut as shown in Figure 2 >, allowing the overlap length as required.

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

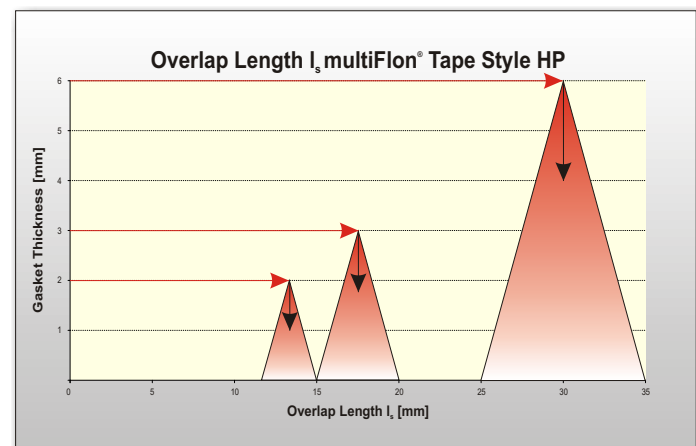
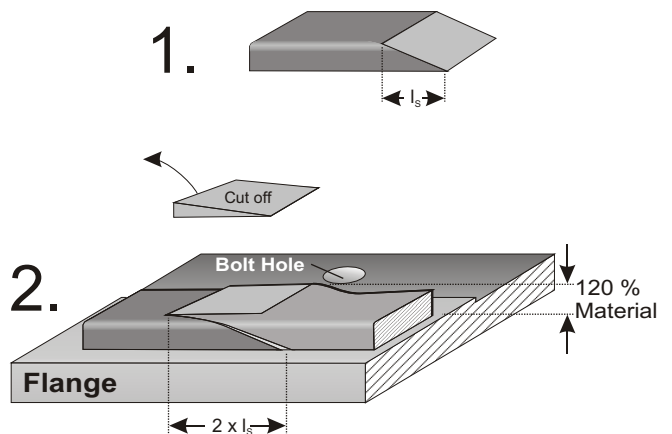
At least 3 progressive torque sequences in a star or 180° method should be used.

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

Gasket Characteristics



Assembly with skiving technique



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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2 Your industrial maintenance partner

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