FluorTex GmbH Polymer Technology

1

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

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





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 EU 1907/2006 (REACH) with Annex XVII and it's amendments



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)

 $\begin{array}{l} Q_{min} \; (40 \; bar \; He; \; 0.01 \; mg/(s^*m)): \\ Q_{Smin} \; (Q_a = 40 \; MPa; \; 40 \; bar \; He; \; L = 0.01): \\ Q_{Smax} \; (23^\circ \text{C}): \\ PQR \; @ \; 23 \; ^\circ \text{C} \; (Q_a = 30 \; MPa): \end{array}$

29 MPa < 10 Mpa 170 Mpa 0,91

ASTM F36

Compressibility:
compressed Thickness:
Recovery:
recovered Thickness:

50 - 55 % 1,42 mm 13 % 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 Is for multiFlon[®] Tape

Thickness [mm]	Lenght skive cut (I _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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