*multi*Flon® Gasket Sheet iComp

Multidirectionally expanded PTFE

Multidirectional ePTFE with improved compressibility

***multi*Flon®** - iComp Gasket Sheets are made from 100% pure multidirectional ePTFE.

During installation, gaskets made from ***multi*Flon®** iComp Sheets adapt perfectly to flange roughness, unevenness and usual irregularities of used flanges. The improved compressibility and the special thickness of up to 7 mm makes these ***multi*Flon®** Gaskets the ideal choice for slightly damaged or corroded flange surfaces.

In service, ***multi*Flon®** iComp Gaskets keep a high thickness and prevent brittle flange surfaces, like with glass lined materials, from cracking.

With ***multi*Flon®** 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 glass lined components

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

Key Features

- 100 % pure multidirectional expanded 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
- higher rigidity and stiffness
- 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
Blow-Out-Safety according VDI 2200
BAM for gaseous and liquid Oxygen
for version GMP: FDA 21 CFR 177.1550 (PTFE)
EG1935 and relating regulations for extraction limits and GMP

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Gasket Sheet iComp *multi*Flon®

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Available Sizes

Type	Size [mm]	Thickness [mm]
***multi*Flon® 32iC**	1500 x 1500	3,2
***multi*Flon® 50iC**	1500 x 1500	5
***multi*Flon® 70iC**	1500 x 1500	7

Properties

EN 13555 (3,2 mm Thickness)

Q_{min} (40 bar He; 0,01 mg/(s*m)):	28 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 @ 120 °C (Q_A=30 MPa):	0,72

ASTM F36

Compressibility:	55 - 60 %
compressed Thickness:	1,5 mm
Recovery:	12 %
recovered Thickness:	1,7 mm

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

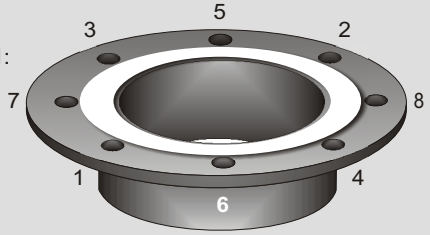
Choice Recommendation

3,2 mm thickness in standard flanges up to DN 1000 / 40”

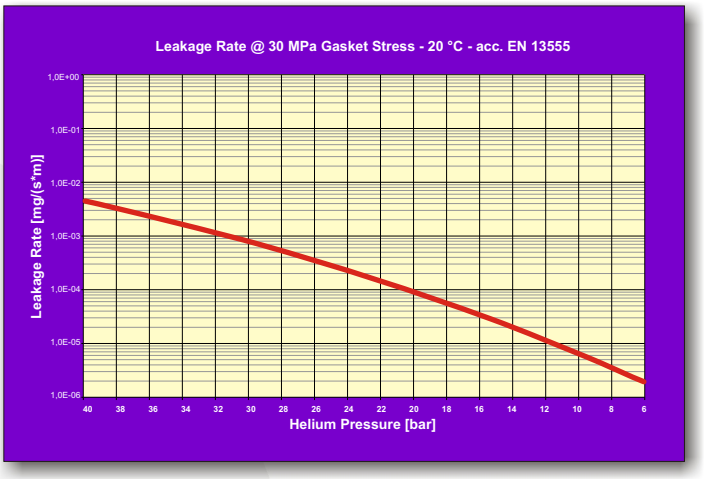
5 mm thickness in standard flanges with slight distorsions

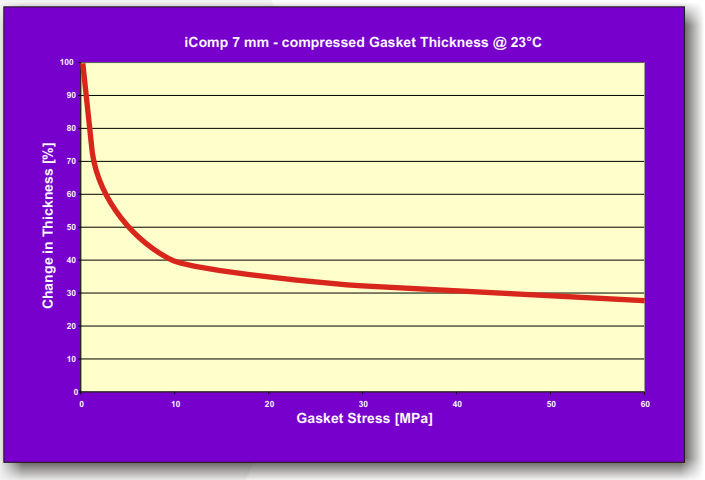
7 mm thickness in flanges and flange-like joints with tolerable unevenness and roughness

fig.01:



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-tigh. 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 idividual calculations for special equipment or non-standard gasket sizes contact FluorTex Technical Support.

Your exclusive multiFlon® iComp Partner

FBss BVBA
Frederik Bohy
Werkplaats:
Luxemburgstraat 5
9140 Temse - België

www.fbss.be

multiFlon Sheet iComp 140215 en