TFC
An AFC Industries Company

www.tfc.eu.com

TEFMET

P.T.F.E

steel lined

gaskets

WHAT EVER THE INDUSTRY

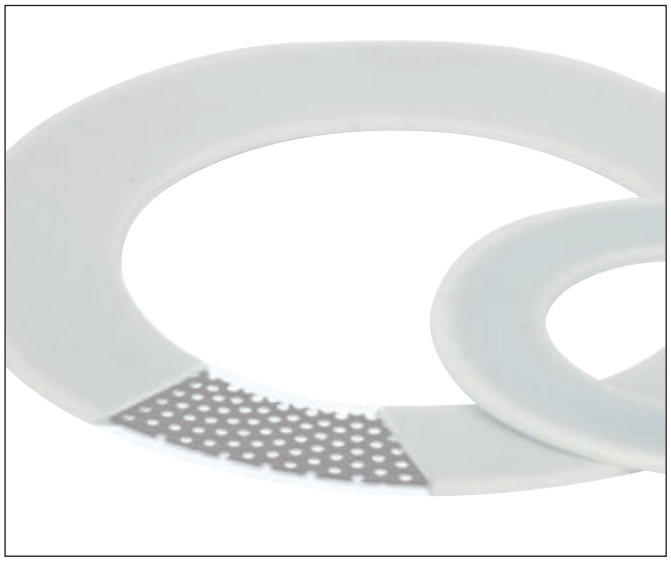
WE HAVE A PART IN IT

TEFMET

P.T.F.E. (Polytetrafluorethylene)

Steel Lined Gaskets

Structure



This is a flange gasket consisting of a 304 stainless steel wire mesh insert, individually moulded into a virgin P.T.F.E. ring conforming to ASA and DIN standards. It is ideally suited for use in a corrosive environment and its non-ageing qualities also make it perfect for use on joints which are not protected from the atmosphere.

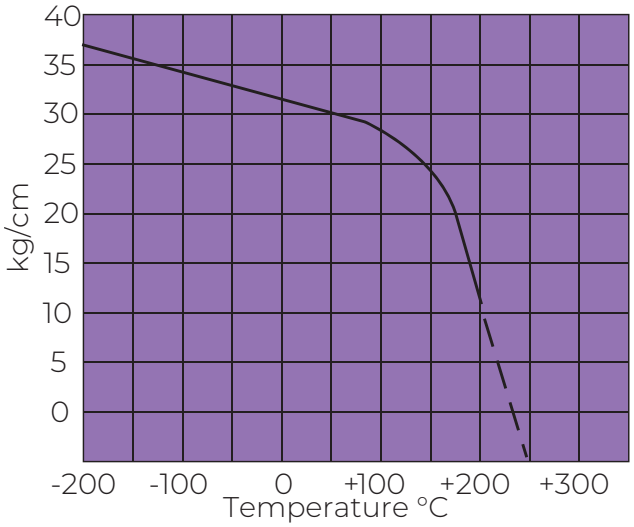
Chemical Resistance

The total P.T.F.E. encapsulation of the TEFMET Gasket makes it resistant to practically all chemicals. Within normal use temperatures P.T.F.E. resins are attacked by so few chemicals that it is more practical to describe exceptions, rather than to tabulate the chemicals with which they are compatible. Molten alkali metals, fluorine and several complex halogen compounds (chlorine trifluoride) are incompatible with P.T.F.E. resins. In some instances at or near the suggested service temperature limit of P.T.F.E. a few chemicals at high concentration have been reported to be reactive. Attack has been produced at very high temperatures by 80% NaOh or KOH, metal hydrides such as boranes (e.g.B2 H_6) aluminium chloride. Also slow oxidative attack has been observed by 70% nitric acid under pressure at 250°C. Except for the chemicals under the extreme conditions mentioned, it can be said the TEFMET gasket in general is chemically inert.

Features

- High chemical resistance due to the total P.T.F.E. encapsulation.
- Operational temperature range of -200°C to + 250°C.
- Anti-adhesive properties/self lubricating.
- Non-toxic/sterilisable.
- Spark tested to 5000 volts.
- Low vapour permeability and minimal water absorption.
- Re-usable due to non-stick surfaces.
- Withstands pressures up to approx 25 BAR.
- Will not cold flow due to metal insertion.
- Resists blow-outs caused by pressure impulses.
- Universal application reduces inventory costs.
- Moulded to size eliminating scrap material from individually cut gaskets.
- Safe and clean to handle.
- Cuts maintenance time due to ease of use.
- Available in ASA, DIN and special sizes.

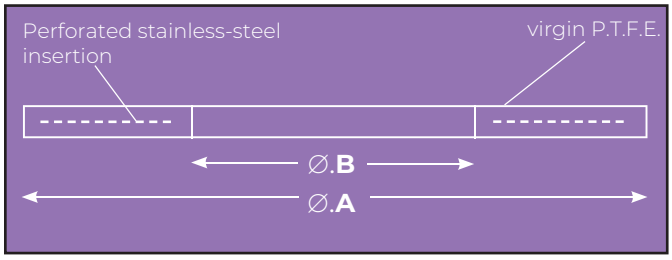
Working Pressure



The recommended working pressure of a TEFMET gasket is dependent on the service temperature, and the stated values should be adjusted accordingly.

Standards

TEFMET gaskets are manufactured to ASA and DIN standards in the following sizes.



Size chart - inches

Nominal size inches	A.S.A.-150 A mm	A.S.A.-150 B mm	A.S.A.-300 A mm	A.S.A.-300 B mm	Oversize A mm	Oversize B mm
0.5	47	21	50	22	47	16
0.75	57	27	60	28	57	21
1	66	33	70	35	68	27
1.25	76	42	82	43	-	-
1.5	85	48	92	49	87	41
2	104	60	107	61	105	54
2.5	123	73	127	77	124	63
3	136	89	149	89	138	80
3.5	160	103	-	-	-	-
4	174	114	180	114	175	103
5	196	141	-	-	-	-
6	222	168	250	168	224	155
8	279	219	308	219	282	203
10	339	273	362	273	-	-
12	409	324	422	324	409	310
14	450	356	485	356	-	-
16	514	406	539	406	-	-
18	549	457	596	457	-	-
20	606	508	654	508	-	-
24	717	610	774	610	-	-

Size chart - metric

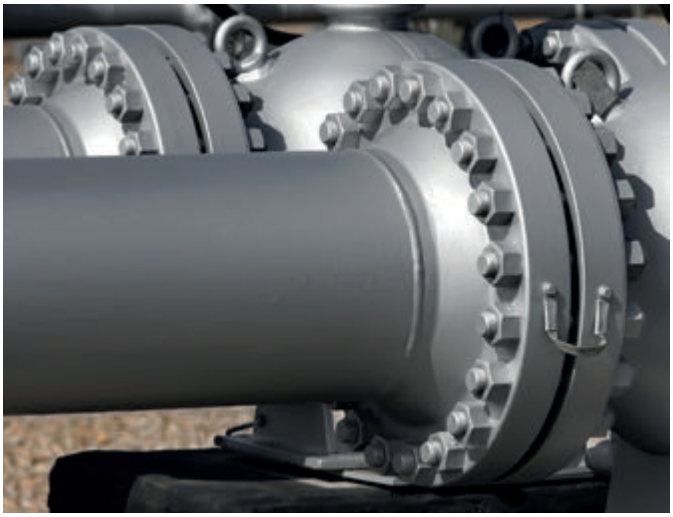
Nominal size mm	DIN 2690 A mm	DIN 2690 B mm	DIN 2691 A mm	DIN 2691 B mm
10	45	18	-	-
15	50	22	39	29
20	60	28	50	36
25	70	35	57	43
32	82	43	65	51
40	92	49	75	61
50	1007	61	87	73
65	127	77	109	95
80	142	90	120	106
100	162	115	149	129
125	192	141	175	155
150	218	169	203	183
200	273	220	259	239
250	328	274	312	292
300	378	325	363	343
350	-	-	421	395
400	-	-	473	447
500	-	-	575	549
700	-	-	777	751

Thickness

Sizes 0.5” to 12” -2.5mm
Sizes 14” to 24” 3.0mm

Installation

The TEFMET gasket is particularly easy to install and remove due to its non-stick surface. It cannot be misaligned as is the case with envelope seals, and it can be re-used many times without the time consuming operation of taking the flanges apart for cleaning. A leak-free seal can be obtained with low bolt torques, the best results being obtained on raised face flanges with a gramophone finish.



Industrial Application

The TEFMET gasket can be utilised in a wide range of industries:

- Chemical Process Industries
- Pharmaceutical Production
- Polymer Production
- Paint & Coating Operations
- Food & Drink Industries
- Petrochemical Industries
- Chemical Transport
- Refrigeration Engineering
- Photochemical Industry
- Medical Equipment

Handling Precautions

Within its normal working temperature range P.T.F.E. is a completely safe inert material, but when heated to temperatures above 250°C decomposition starts to occur slowly increasing rapidly above 400°C. The resultant fumes may produce unpleasant effects if inhaled. Care should be taken to avoid contamination of tobacco with P.T.F.E. particles as this is the most common way by which accidental exposure to such fumes is caused.

Handling Precautions

Should any additional information be required please telephone our technical support desk.

TFC Europe Ltd Head Office, Hale House, Ghyll Industrial Estate, Heathfield, East Sussex, TN21 8AW
t: 01435 866011 w: www.tfc.eu.com e: enquiries@tfc.eu.com