



**FLEXITALLIC LIMITED**

PO BOX 3, MARSH WORKS, DEWSBURY ROAD  
CLECKHEATON, WEST YORKSHIRE BD19 5BT  
TEL: 01274 851273 FAX: 01274 851386

**FLEXITALLIC  
SIGMA 588**

PRODUCT  
REFERENCE: FLEXITALLIC SIGMA 588

DESCRIPTION: SIGMA 588 is a high performance PTFE based sheet sealing material with highly conformable surface layers of controlled porosity PTFE and a strong core of biaxially orientated pure PTFE.

COLOUR: White

SERVICE: Sigma 588 is specifically designed for use in flanges where only low bolt loading is available. Such flanges can be glass lined, ceramic, plastic or be so distorted that they include areas of low gasket stress. Suitable for sealing all chemicals across the whole pH range (0-14) with the exception of molten alkali metals and fluorine gas. Consisting entirely of pure PTFE, this material is suitable for use with hydrogen fluoride.

Maximum recommended temperature: 260°C (500°F)

Maximum recommended pressure: 8.5 MPa (85 bar; 1235 psi)

These temperature and pressure guides cannot necessarily be used simultaneously and may not apply at all thicknesses.

Complies with the requirements of FDA regulations.

Do NOT use gasket pastes.

TYPICAL PHYSICAL PROPERTIES:

Thickness	mm	1.50	3.00
Density	gcm <sup>-3</sup>	1.13	1.12
ASTM Compressibility	%	55.4	55.7
ASTM Recovery	%	24.3	14.7
ASTM Tensile Strength	MPa	9.6	8.3
DIN Residual Stress @ 175°C	MPa	28	17.6
DIN Gas Permeability	mL/min	0.01	0.02
ASTM Liquid Leakage; Fuel A 50 psi	mL/hr	1.6	1.3

AVAILABILITY:

Sheet size: 1.5 m x 1.5 m

Thickness range: 1.50 mm to 3.2 mm  
Other thicknesses may be available on request

PDS 344

07/07

This Data Sheet refers to the material as supplied. The information contained herein is given in good faith, but no liability will be accepted by the Company in relation to same. We reserve the right to change the details given on this Data Sheet as additional information is acquired. Customers requiring the latest version of this Data Sheet should contact our Applications Engineering Department. The information given and, in particular, any parameters, should be used for guidance purposes only. The Company does not give any warranty that the product will be suitable for the use intended by the customer.

## HEALTH AND SAFETY

Because of the processes which take place during manufacture, the product is believed to present no health and safety hazard and, under normal handling and use it is unlikely that the product will give rise to significant levels of exposure to constituent materials.

SIGMA 588 contains PTFE.

Under harsh mechanical treatment (e.g. high speed stamping operations or abrasion) the constituents may give rise to irritant dusts which, in extreme cases of exposure, could lead to more serious respiratory problems. Occupational exposure to such dusts should therefore be minimised and kept below relevant national exposure limits. Good standards of hygiene should be applied during gasket cutting operations and off-cuts should be disposed of by transfer to a site appropriately licensed to accept industrial materials of this nature.

Although PTFE is non-flammable, at elevated temperatures or in a sustained fire, decomposition will occur and give rise to irritant and in some instances harmful or toxic fumes.

For more detailed information, reference must be made to our Health and Safety Bulletin, Sections 1, 2, 2.10, 3 and 3.4. This will enable you to carry out any necessary assessment of risk which may be required under national or local legislation.