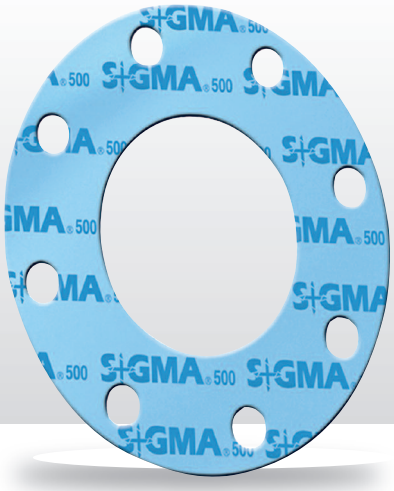
Flexitallic®

WILLIAM JOHNSTON & COMPANY LIMITED

PRODUCT DATASHEET

SIGMA® 500



SIGMA® 500 is a high performance biaxially orientated sheet sealing material containing PTFE and hollow glass microspheres.

SIGMA©
INNOVATIVE. VERSATILE. COMPLETE.

Service:

SIGMA® 500 is capable of creating a seal across a wide range of gasket stress. This makes the product suitable not just for use in standard metallic flanged connections but also in load compromised bolted connections; such as those applications involving glass lined, plastic and thin or distorted metal flanges.

Sigma® 500 material is inherently clean, making it suitable for use in industries where product contamination may be of concern such as food, beverage and pharmaceuticals.

Suitable for sealing most chemicals across the whole pH range (0-14) with the exception of molten alkali metals, fluorine gas, hydrogen fluoride or materials which may generate these.

Recommended temperature range:
- 250°C to 260°C

Recommended pressure range:
Vacuum to 85 bar (1230 psi)

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

Complies with the requirements of FDA regulations.

WRAS Approved for use with potable water:
Approval No. 2208578

TA-LUFT approved.
DVGW DIN 3533-6 tested.

Tested in accordance to EC Regulation No. 10/2011*
**being the specific testing requirements of EN Regulation 1935/2004*

Do NOT use gasket pastes.

Availability:

Sheet size:
1.5m x 1.5m
2.0m x 2.0m
For gaskets above sheet size welded gaskets are available.

Thickness range:
0.75mm to 3.2mm
Other thicknesses may be available on request.

Colour: Blue

Typical Physical Properties:

Thickness	1.5mm	3.0mm
Density	1.4gcm^{-3}	1.4gcm^{-3}
ASTM F36A Compressibility	35%	30%
ASTM F36A Recovery	44%	43%
ASTM F152 Tensile Strength	14MPa	10MPa
DIN 52913 Residual Stress @ 175°C	30MPa	26MPa
DIN 3535-6 Gas Permeability	< 0.1mL/min	< 0.1mL/min
ASTM F37A Liquid Leakage 1000 psi gasket stress, 50 psi Fuel A	0.65mL/hr	0.75mL/hr
ASTM F38B Creep Relaxation	31%	47%

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 & Safety
For further Health and Safety information please see the relevant Material Safety Datasheets or contact Flexitallic Ltd.

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Disclaimer
Please note, failure to select the correct materials or products we supply ("the Products") may result in damage to plant, equipment or property. In some instances, it may cause death or personal injury. We are not designers and do not give advice about design related matters concerning the Products. We can help and assist with the technical specifications for the Products. In specific applications, particularly where critical conditions exist, we will try to assist you within the limitations of the services that we offer. All information supplied by us is intended as technical co-operation outlining the specifications of the different Products which we supply. To the extent permitted in law, no warranty is given in respect of any information supplied by us. The customer must satisfy themselves as to the suitability of the Products for their intended application and use. The correct fitting of Products is the responsibility of the customer. Your statutory rights remain unaffected. Save in respect of death, personal injury or fraud, our entire liability to you, however arising from the supply of Products shall be limited to the £10M indemnity amount provided by our insurers.

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