

# Flexitallic®



## PRODUCT DATASHEET

# SIGMA® 511



SIGMA® 511 is a high performance biaxially orientated sheet sealing material containing PTFE with silica filler.

## SIGMA

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.



### 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.

### Service:

SIGMA® 511 is 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. Sigma® 511 is particularly suitable for use in applications involving strong acids.

**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. 1206528

TA-LUFT approved

BAM Oxygen

Do NOT use gasket pastes.

### Availability:

**Sheet size:**

1.5m x 1.5m

2.0m x 2.0m

For large sizes, welded gaskets are available.

**Thickness range:**

0.75mm to 3.2mm

Other thicknesses may be available on request.

**Colour:** Pink

### Typical Physical Properties:

Thickness	1.5mm	3.0mm
Density	2.2gcm <sup>-3</sup>	2.2gcm <sup>-3</sup>
ASTM F36A Compressibility	7%	7%
ASTM F36A Recovery	44%	45%
ASTM F152 Tensile Strength	16MPa	15MPa
DIN 52913 Residual Stress @ 175°C	30MPa	20MPa
DIN 3535-6 Gas Permeability	< 0.1mL/min	< 0.1mL/min
ASTM F37A Liquid Leakage 1000 psi gasket stress, 50 psi Fuel A	4mL/hr	3mL/hr
ASTM F38B Creep Relaxation	35%	53%