



## WILLIAM JOHNSTON & COMPANY LIMITED

Glasgow Tel: +44 (0) 141 620 1666 | Inverness Tel: +44 (0) 1463 238 673  
[sales@williamjohnston.co.uk](mailto:sales@williamjohnston.co.uk) | [www.williamjohnston.co.uk](http://www.williamjohnston.co.uk)

# GRAFILIT® SF



## TECHNICAL DATA SHEET

## GRAFILIT® SF —without insertion

### General properties and application

Flexible graphite gasket materials exhibit excellent creep, strength, chemical stability and high tightness. They are ideal for a wide range of applications under various conditions at high temperature and pressure, mechanical and thermal cycles and shocks. Flexible graphite gasket materials are suitable to confine steam as well as practically all chemicals. Exceptions are strong oxidizing media such as nitric acid, chromic acid, etc.

**Approvals: DIN-DVGW, HTB, KTW, BAM, GERMANISCHER LLOYD**

Comforms to DIN 28091-4

### Technical data

(typical values)		GRAFILIT® SF
Continuous use max. temperature*		
• Air or oxidizing atmosphere		450°C / 842°F
• Reducing or inert atmosphere		2500°C / 4532°F
Continuous use min. temperature*		-200°C / -328°F
Continuous use max. pressure*		80 bar / 1160 psi
Compressibility	ASTM F36	45 %
Recovery	ASTM F36	13 %
Stress resistance (16 h, 300°C)	DIN 52913	49 N/mm <sup>2</sup>
Permeability to nitrogen (40 bar, RT)	DIN 3535/6	<0.02 mg/(s.m)
Ash content of graphite	DIN 51903	<1 %
Chloride content	FSA NMG 202-02	<50 ppm
Fluoride content	FSA NMG 203-02	<50 ppm
Density of the graphite	DIN 28090-2	1.0 g/cm <sup>3</sup>
Compression modulus	DIN 28090-2	
• at room temperature: $\epsilon_{KSW}$		38 %
• at elevated temperature: $\epsilon_{WSW/300^\circ C}$		0.9 %
Percentage creep relaxation	DIN 28090-2	
• at room temperature: $\epsilon_{KRW}$		5.0 %
• at elevated temperature: $\epsilon_{WRW/300^\circ C}$		4.5 %
Recovery R	DIN 28090-2	0.088 mm

\*Service limits are recommended for proper sealing conditions and gaskets design

GRAFILIT® SF is also available in rolls:  
 Width: 4-1000 mm, Length—standard: 50 m  
 Thickness—standard: 0.5, 0.8 mm  
 Other dimensions are available on request.

### Supply data

Sheet size—standard: 1000 X 1000 mm, 1500 X 1500 mm

Thickness—standard: GRAFILIT® SF: 1.0, 1.5, 2.0, 2.5, 3.0 mm

Failure to select the correct materials or products can result in damage to plant and equipment and personal injury. In specific applications, particularly where critical conditions exist, we suggest you contact us and we will consider with you the most suitable material or product.

However, information supplied by William Johnston & Company Limited is intended only as technical co-operation and as a guide to the various uses of different products.

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The customer must satisfy themselves on the suitability of the material or product for the intended purpose. The correct fitting of products is the responsibility of the customer.