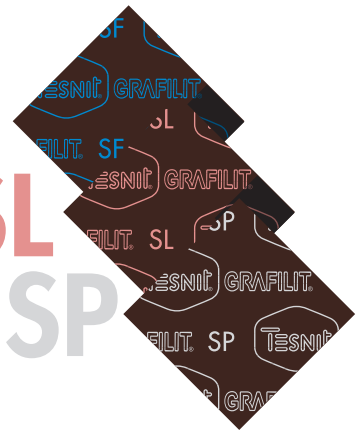




GRAFILIT[®] SF

GRAFILIT[®] SL

GRAFILIT[®] SP



TECHNICAL DATA SHEET

Basis

Flexible graphite sheets

GRAFILIT[®] **SF** – without insertion

GRAFILIT[®] **SL** – laminated with flat stainless-steel insertion (AISI 316; 0.05mm)

GRAFILIT[®] **SP** – mechanically bonded to a tanged stainless-steel insertion (AISI 316; 0.1 mm)

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: KTW /BAM

Applied for approvals: DVGW / HTB

Conforms to DIN 28091-4

TECHNICAL DATA

(typical values)

| | GRAFILIT [®] SF | GRAFILIT [®] SL | GRAFILIT [®] SP |
|---|--------------------------|--------------------------|--------------------------|
| Continuous use max. temperature* | 450°C / 842°F | 450°C / 842°F | 450°C / 842°F |
| • Air or oxidizing atmosphere | 2500°C / 4532°F | 700°C / 1292°F | 700°C / 1292°F |
| • Reducing or inert atmosphere | -200°C / -328°F | -200°C / -328°F | -200°C / -328°F |
| Continuous use min. temperature* | 80 bar / 1160 psi | 100 bar / 1450 psi | 200 bar / 2900 psi |
| Continuous use max. pressure* | 45 % | 45 % | 35 % |
| Compressibility | ASTM F36 | ASTM F36 | ASTM F36 |
| Recovery | 13 % | 13 % | 17 % |
| Stress resistance (16h, 300°C) | DIN 52913** | DIN 52913** | DIN 52913** |
| Permeability to nitrogen (40bar, RT) | 49 N/mm ² | 49 N/mm ² | 49 N/mm ² |
| Ash content of graphite | <0.02 mg/s·m | <0.05 mg/s·m | <0.05 mg/s·m |
| Chloride content | DIN 51903 | DIN 51903 | DIN 51903 |
| Fluoride content | <2 % | <2 % | <2 % |
| Density of the graphite | DIN 28090-2 | DIN 28090-2 | DIN 28090-2 |
| Compression modulus | <50 ppm | <50 ppm | <50 ppm |
| • at room temperature: ϵ_{KSW} | FSA NMG 203-89 | FSA NMG 203-89 | FSA NMG 203-89 |
| • at elevated temperature: $\epsilon_{WSW/300^\circ C}$ | <50 ppm | <50 ppm | <50 ppm |
| Percentage creep relaxation | DIN 28090-2 | DIN 28090-2 | DIN 28090-2 |
| • at room temperature: ϵ_{KRW} | 1.0 g/cm ³ | 1.0 g/cm ³ | 1.0 g/cm ³ |
| • at elevated temperature: $\epsilon_{WRW/300^\circ C}$ | 38 % | 41 % | 32 % |
| Recovery R | 0.9 % | 1.1 % | 1.2 % |
| | 5.0 % | 4.5 % | 4.5 % |
| | 4.5 % | 4.0 % | 4.0 % |
| | DIN 28090-2 | DIN 28090-2 | DIN 28090-2 |
| | 0.088 mm | 0.080 mm | 0.086 mm |

*Service limits are recommended for proper sealing conditions and gaskets design, **Standard is withdrawn

Supply data:

Sheet size – standard 1000 x 1000 mm

Thickness – standard GRAFILIT[®] **SF**: 1.0, 1.5, 2.0, 2.5, 3.0 mm

GRAFILIT[®] **SL**: 1.0, 1.5, 2.0, 3.0 mm

GRAFILIT[®] **SP**: 1.0, 1.5, 2.0, 3.0 mm

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.

All information data quoted are based on years of experience in production and operation of sealing elements. However, in view of the wide variety of possible installation and operating conditions one cannot draw final conclusions in all application cases regarding the behaviour in a gasket joint. The data may not, therefore, be used to support any warranty claims. Whenever there is any doubt, our staff will be pleased to assist you in finding the optimum sealing solutions.



This edition cancels all previous issues. Subject to change without notice.

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