



DESCRIPTION

GRAF01 offers great flexibility thanks to its unreinforced expanded graphite structure, ensuring maximum adaptability and high-performance sealing in service. Free of metal inserts, this material is specifically designed to meet the demands of very high-temperature applications with excellent resilience.

Composition	Expanded graphite (purity >98%) without reinforcement
Color	Black (2 sides)

APPLICATIONS

- General applications at very high temperatures

GRAPHITE PURITY

Characteristics \ Quality	STANDARD	PREMIUM (on request)	
Ash content (ASTM C561)	<2	<0.50	%
Leachable chloride ions (ASTM F1277)	<50	<20	ppm
Leachable fluoride ions (ASTM F1277)	<50	<20	ppm

DIMENSIONS

Standard format (mm)	1000 x 1000 (±5%)
Others formats on request (mm)	1500 x 1500 (±5%)
Thickness (mm)	1.0 - 1.50 - 2.00 - 3.00 (±10%)

TECHNICAL MATERIAL DATA SHEET

GRAF01



TECHNICAL DATA

Typical value for a thickness of 2mm

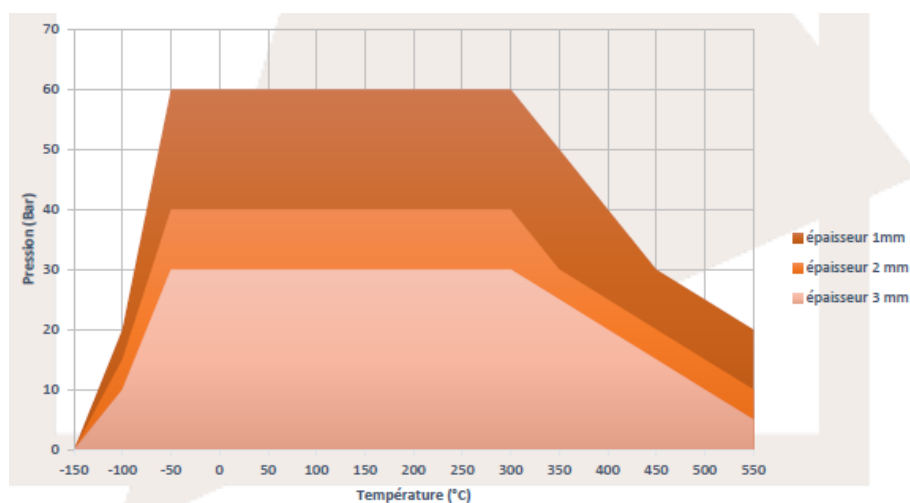
Test description	Standard	Unit	Value
Recommended maximum operating temperatures			
Air or oxidizing environment		°C	450
Reducing or inert fluid and seal exposed to air		°C	550
Reducing or inert environment (fluid and seal)		°C	3000
Maximum operating pressure		MPa	8
Heat relaxation 16h, 50Mpa, 300°C	DIN 52913	N/mm ²	49
Compressibility	ASTM F36	%	40 - 50
Tensile strength	ASTM F36	%	10 - 15
Gas permeability	DIN 35356	mg/(s.m)	0.05
Compression module	DIN 28090-2		
At room temperature ϵ_{KSW}		%	45
At high temperature $\epsilon_{WSW/300^\circ C}$		%	< 4
Creep relaxation	DIN 28090-2		
At room temperature ϵ_{KRW}		%	4.5
At high temperature $\epsilon_{WRW/300^\circ C}$		%	4.5



CORRESPONDING TEMPERATURE/PRESSURE TABLE

The table below serves as a guide for using the seal. It indicates the temperature and pressure ranges within which the seal ensures a high level of sealing performance and a service life of several years—assuming air exposure and chemical compatibility between the seal and the fluid. Precautions must be taken in the event of thermal or mechanical disturbances.

For applications below -50°C, the seal maintains its sealing integrity only if installed completely dry and if the flange load is applied at ambient temperature.



The technical specifications mentioned above are typical average values obtained using the test methods indicated and may therefore be subject to normal manufacturing variations.

They are provided for guidance only. They do not constitute a guarantee, and we recommend that you carry out a test before final implementation.