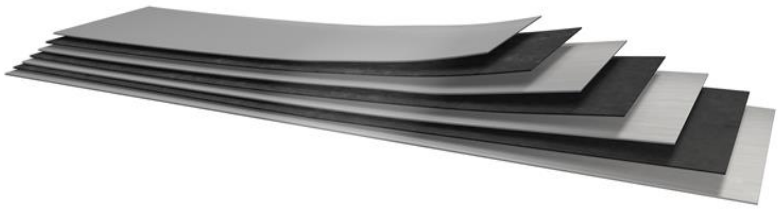
Flexicarb® RGS-HP



High performance, oxidation resistant, multilayer reinforced graphite sheet gasket material.

Flexicarb® RGS-HP is a **high performance** reinforced graphite laminate sheet sealing material comprised of several layers of stainless steel and high purity, oxidation resistant flexible graphite. Individual lamina of graphite and stainless steel are fused together using a proprietary process resulting a high strength laminate with outstanding load bearing characteristics. Additional impregnation of the fused laminate reduces leakage under low assembly stress applications, improves handling and installation and aids gasket release on removal.

APPLICATIONS

- Suitable of high pressure, up to 250 bar, high temperature applications.
- Standard Class and PN rated flanges including tongue and groove flange face configurations.
- Non-standard connections, heat exchangers, vessels, sight glasses, valve bonnets etc.
- Medium and high pressure steam service.
- Large sheet size of 1,500 x 1,500 mm enabling the manufacture of large single piece gaskets.
- Temperature range from -250°C to 550°C.
  Consult Flexitallic when application temperature exceeds 450°C.

PROPERTIES

- Excellent mechanical characteristics across a wide range of assembly stresses and operating temperatures.
- Low load loss even under extreme application conditions.
- Inherent blow-out resistance.
- Excellent chemical resistance.
- Enhanced long term sealing performance in elevated temperature service.
- High purity graphite mitigates flange face crevice and stress

TYPICAL PROPERTIES		RGS-HP	
Thickness	mm	1.5	3.0
Sheet Dimensions	m	1.0 x 1.0 1.5 x 1.5	1.0 x 1.0 1.5 x 1.5
Bulk density	g/cm³	1.1	1.1
Steel Reinforcement Plies	Qty	2	5
Steel Reinforcement Grade	AISI	316 (L)	316 (L)
Steel Reinforcement Thickness	mm	0.05	0.05
Carbon Content	%wt	≥ 99	≥ 99
Ash Content	%wt	≤ 1	≤ 1
Total Sulphur	ppm	< 300	< 300
Total Chloride	ppm	≤ 25	≤ 25
Compressibillity	%	35	35
Recovery	%	5	5
Hot Creep	%	≤ 3	≤ 3
δ_{VO}	N/mm²	> 280	> 230
$\delta_{BO/300^{\circ}C}$	N/mm²	> 220	> 170
$\delta_{VU/0.1}$ **10bar**	N/mm²	8	9
16bar	N/mm²	10	12
25bar	N/mm²	14	16
40bar	N/mm²	19	23
Oxidisation rate in air 670 °C BS EN 14772 (6.7)	%wt/h	≤ 3.0	≤ 3.0
ASME Gasket Factor 'm'	m	2.5	2.5
ASME Gasket Seating Stress 'y'	psi	3000	3000