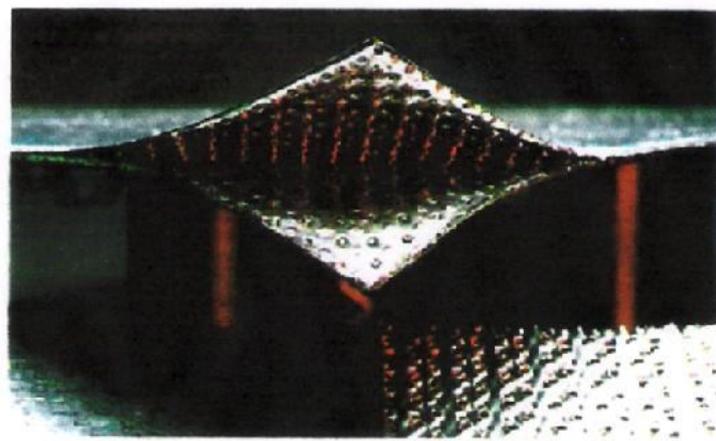


2151 Sheets

Laminated expanded flexible graphite sheets for fabrication of flat gaskets. Excellent creep strength and good sealability also at low gasket stress and with flanges of irregular surface.

Applications:

Ideal for a wide range of applications, including high temperature and pressure, mechanical and thermal cycles and shocks. Suitable to confine steam, hydrocarbons and most chemicals (refer to chemical resistance table).



Technical Data

(typical values for 2 mm thick sheets)

Insert

Maximum suggested continuous service temperature *

- if medium is air or oxidizing agent
- if medium is reducing or inert, but joint is exposed to air
- if both medium and joint atmosphere are reducing or inert

Minimum suggested continuous service temperature *

Maximum suggested continuous service pressure *

Compressibility

Recovery

Stress retention - 16 hrs, 300°C, 50 N/mm²

Stress relaxation - 22 hrs, 400°C, 20 N/mm²

Nitrogen permeability - 40 bar, RT

Styles		Gra-Flex AG	Gra-Flex GPR	Gra-Flex GPE
		glued smooth stainless steel 0.05 mm thick	mechanically bonded perforated tanged S.S. 0.10 mm thick	coated fiberglass fabric 0.05 mm thick
	°C	450	450	450
	°C	550	550	550
	°C	800	800	600
	°C	-200	-200	-200
	bar	60	120	60
ASTM F36	%	45	35	45
ASTM F36	%	15	15	15
DIN 52913	N/mm ²	45	48	47
ASTM F38	%	< 5	< 5	< 5
DIN 3535/4	ml/min	< 0.6	< 0.6	< 0.6

* Service limits are recommended for proper seating conditions and gasket design. Max. temperature limits are imposed by inserts.

Other Styles

Gra-Flex S – laminated flexible graphite sheet without insert

Gra-Flex RX – reinforced with multiple smooth stainless steel inserts (0.05 mm thick), for extra mechanical strength and more homogeneous distribution of the assembly load

Gra-Flex N – reinforced with a stainless steel wire net, for good gasket mechanical strength

Gra-Flex F – reinforced with a PTFE foil insert, which provides strength while not reducing the chemical resistance.

Gra-Flex ALU – protected on both surfaces by aluminium foil

NEW : Gra-Flex RGR – reinforced with a combination of smooth and perforated stainless steel inserts, for extra mechanical strength and torque retention, while ensuring easy gasket cutting

Sheets with double insert are available upon request.

References:

DIN 28091-4: compliance to technical delivery conditions for graphite-based gasket sheets

Italian Ministry of Defence: official approval for use with steam and high temp. media, 550°C, 25 bar

Tecnimont (Italy): official approval for use with oils and acids up to 450°C, 40 bar (class 96)

ENI (Italy): compliance with spec. 9302, class 28, for use up to 450°C.

Italian Railways: official approval for use with diesel engines up to 650°C, 100 bar

French Railways: official approval for use up to 650°C

Ecole Polytechnique of Montreal (Canada): Fire-safety certification as per FITT test

Weaveline Gaskets

Gaskets obtained from Gra-Flex sheets, inserted with one or two stainless steel 316 tanged sheets (according to gasket thickness) and reinforced with stainless steel 316 inner and outer eyelet rings.

