PRODUCT INFORMATION

Flexitallic®
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FLEXICARB RGS 3

(FLEXICARB ST)

PRODUCT REFERENCE: ***FLEXICARB RGS 3*** (known as FLEXICARB ST in the US)

DESCRIPTION: ***RGS 3 is a high purity graphite laminate reinforced with a tanged stainless steel core.***

SERVICE: ***FLEXICARB RGS 3 is recommended for applications involving high sealing stresses and where high blowout resistance is required. The inclusion of the steel reinforced layer gives rise to a robust sheet. RGS 3 can be used to seal a wide range of media, with the exception of strong oxidizing agents, at extremes of temperature and pressure. Typical industries where RGS 3 is used include power generation and petrochemical.***

Maximum recommended temperature : ***Oxidising media 370°C (700°F)***
Inert or reducing media 700°C (1830°F)

Maximum recommended pressure : ***20 MPa (200 bar; 2900 psi)***

Note : For applications sealing inert or reducing media, at temperatures in excess of 370°C, attention must be given to the possibility of oxidative attack on the gasket from the external environment.

Use with strong oxidising agents should be avoided.

For long term continuous use in oxidising environments at temperatures in excess of 370°C please consult Flexitallic Applications Engineering Department.

CONSTRUCTION :

Facing material : ***98 % pure graphite foil.***

Reinforcement : ***0.1mm thick tanged stainless steel (AISI 316 grade)l.***

Adhesive : ***No adhesive used.***

TYPICAL PHYSICAL PROPERTIES:

Thickness		***1.5 mm***
Density	***gcm^{-3}***	***1.35***
ASTM Compressibility	***%***	***45***
ASTM Recovery	***%***	***10***
BS Residual Stress	***MPa***	***38***
ASTM Tensile Strength	***MPa***	***17***
Leachable Chloride Ion Content	***ppm***	***<50***
Leachable Fluoride Ion Content	***ppm***	***<50***

AVAILABILITY:

Sheet size : ***1.0 m x 1.0 m & 1.5 m x 1.5 m***
Tolerances +5mm/-4mm

Thickness range : ***1.0 mm to 3.0 mm***
Tolerances +/- 10%

PDS 135 09/05

This Data Sheet refers to the material as supplied. The information contained herein is given in good faith, but no liability will be accepted by the Company in relation to same.
We reserve the right to change the details given on this Data Sheet as additional information is acquired.
Customers requiring the latest version of this Data Sheet should contact our Applications Engineering Department.

The information given and, in particular, any parameters, should be used for guidance purposes only. The Company does not give any warranty that the product will be suitable for the use intended by the customer.

HEALTH AND SAFETY

Because of the processes which take place during manufacture, the product is believed to present no health and safety hazard and, under normal handling and use it is unlikely that the product will give rise to significant levels of exposure to constituent materials.

RGS 3 is a laminate containing exfoliated graphite reinforced with a tanged stainless steel core.

Under harsh mechanical treatment (e.g. high speed stamping operations or abrasion) the constituents may give rise to irritant dusts which, in extreme cases of exposure, could lead to more serious respiratory problems. Occupational exposure to such dusts should therefore be minimised and kept below relevant national exposure limits. Good standards of hygiene should be applied during gasket cutting operations and off-cuts should be disposed of by transfer to a site appropriately licensed to accept industrial materials of this nature.

Graphite is combustible. At elevated temperatures or in a sustained fire, toxic fumes may be produced.

The material is conductive. Graphite debris or dust should not be allowed to penetrate electrical equipment. The reinforcing core may have very sharp edges; handle with care, particularly after cutting.

For more detailed information, reference must be made to our Health and Safety Bulletin, Sections 1, 2, 2.11, 3 and 3.2. This will enable you to carry out any necessary assessment of risk which may be required under national or local legislation.