



FLEXITALLIC LIMITED

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**FLEXICARB™
 HT**

PRODUCT REFERENCE: Flexicarb™ HT (Oxidation Resistant Graphite)

DESCRIPTION: Flexicarb™ HT is a high purity graphite foil used both as a filler material for spiral wound gaskets and as a facing material for Flexpro™ (kammprofile) gaskets. Flexicarb™ HT contains a high performance oxidation inhibitor improving long term high temperature sealing characteristics compared to other graphite based sealing materials.

SERVICE: Flexicarb™ HT is recommended for general sealing applications at service temperatures approaching what is generally recognized to be the accepted oxidation threshold of standard graphite based gaskets under atmospheric conditions. It is suitable for use across a wide range of chemicals with the exception of strong oxidizing agents. Note; consideration should be given to the potential exposure of the outer periphery of the gasket to air at temperatures in excess of 450°C.

Maximum recommended temperatures for continuous use:

In air: 450°C (842°F)
 In steam: 650°C (1200°F)
 Inert or reducing media: 3000°C (5432°F)

Maximum recommended Pressure: Gasket style & rating dependent.

For long term continuous high temperature use in oxidizing environments please consult The Flexitallic Applications & Engineering Department.

PHYSICAL PROPERTIES:

Bulk Density	(gcm ⁻³)	1.1
ASTM Compression	(%)	40
ASTM Recovery	(%)	15
Carbon Content	(%)	98 min
Ash Content	(%)	2 max
Sulphur Content	(ppm)	500 max
Leachable Chlorides	(ppm)	<50
Leachable Fluorides	(ppm)	<50
Oxidation Resistance (TGA);		
3 hours @ 700°C	(% wt loss)	<8
5 hours @ 700°C	% wt loss)	<13

AVAILABILITY: Thickness range: 0.5 mm
 Other thicknesses may be used depending on the specific application

PDS 504 05/10

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.

Flexicarb™ HT is an oxidation inhibited graphite foil manufactured from exfoliated graphite flake.

Under harsh mechanical treatment (e.g. high speed stamping or slitting operations or when abraded) 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 electrically conductive. Graphite debris or dust should not be allowed to penetrate electrical equipment.

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.