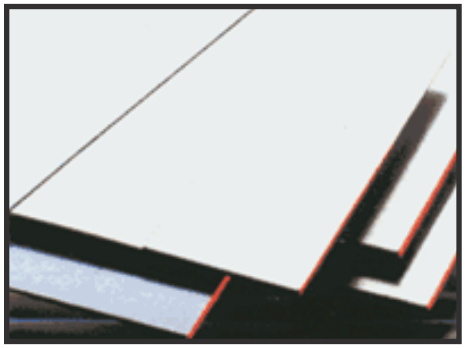
# SEALRITE EXPANDED GRAPHITE MATERIAL





Pure expanded mineral graphite products provides an excellent gasket material for high temperature, high pressure applications or for applications where the gasket width is relatively narrow. The material is resistant to most organic and inorganic acids and is suitable to seal a very wide range of media. It is almost completely impermeable to gases and fluids and is commonly used in very demanding application where low emission is paramount. The material have no ageing or embrittlement problems common with elastomeric based materials and displays long term stability of compressibility and recovery over a wide temperature range. Graphite however is not suitable for use with very strong oxidising compounds like highly concentrated nitric acid or chromic acid.

## EXPANDED GRAPHITE SHEETS

Sealrite expanded graphite sheets is made from pure mineral graphite and formed into sheets through a laminar process. Commonly used for gaskets for flanges and connections in demanding application or as an asbestos gasket substitute. Sealrite offers expanded graphite sheets in the following styles:

**Style 188:** Pure homogeneous expanded mineral graphite. This style offers the highest temperature rating for inert or reducing environment of up to 2000°C

**Style 388:** Expanded mineral graphite with steel foil sheet reinforcement. The steel foil insertion allows for better handling and higher operating pressure

**Style 488:** Expanded mineral graphite with tanged stainless steel 316 reinforcement. Stainless Steel 316 sheet allows the material to achieve substantially higher dynamic loading giving it a high blow out resistance and mechanical strength. The insertion also allows for better handling.



All information and data quoted has been provided by our suppliers and is based upon years of experience in the production and operation of sealing elements. This data may not be used to support any warranty claims. With its publication this latest edition supersedes all previous issues and is subject to change without further notice.

## TECHNICAL INFORMATION

| Specifications: | Style 188<br>Homogenous | Style 388<br>SS 316 Foil Insert | Style 488<br>Tanged SS316 |
|---|---|---|---|
| Density of graphite | 1 g/cm$^3$ | 1 g/cm$^3$ | 1 g/cm$^3$ |
| Ash content | <2.0 % | <2.0 % | <2.0 % |
| Chloride content | <30 ppm | <30 ppm | <30 ppm |
| Gas permeability | <0.2 ml/min | <0.5 ml/min | <0.5 ml/min |
| Reinforced material thickness | - | 0.05mm | 0.10mm |
| Operating Temperature:<br>-oxidising environment | -200$^o$C to 500$^o$C | -200$^o$C to 500$^o$C | -200$^o$C to 500$^o$C |
| Operating Temperature:<br>-inert or reducing environment | -200$^o$C to 2000$^o$C | -200$^o$C to 750$^o$C | -200$^o$C to 750$^o$C |
| Operating Pressure | 80 bar | 100 bar | 200 bar |
| Compressibility | 45% | 45% | 35% |
| Recovery | 13% | 13% | 17% |
| Tensile Strength | 4.5N/mm$^2$ | 25N/mm$^2$ | 25N/mm$^2$ |
| Standard Dimensions | 1m x 1m<br>1.5m x 1m | 1m x 1m<br>1.5m x 1m | 1m x 1m<br>1.5m x 1m |
| Available Thickness | 0.2mm to 3mm | 0.8mm to 3mm | 1mm to 3mm |

Contact us to discuss requirements and place your order 07 3277 3922

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