



The Insolion[®] GRE gasket consists of a G10 glass reinforced (GRE) carrier with two modified PTFE sealing faces.

Proprietary machining of the carrier allows correct location of the sealing faces, with the depth / profile designed to achieve correct compression and groove fill.

Application guidelines

- Flange insulation and electrical isolation in conjunction with cathodic protection.
- Specified for plant wide use on the majority of flange specifications including ASME, API, EN, BS and DIN.
- Insulation between dissimilar metals to prevent galvanic corrosion.

Availability

Insolion GRE can be supplied in sizes from NB ½" to 24" diameter to match the majority of flange including ASME, API, EN, BS, ISO and DIN. Custom dimensions and sizing options are available upon request.

Nominal thickness of Insolion GRE is 3.2 mm.

Insolion GRE is supplied as a kit suitable for the specific flange size and class rating required.

This kit includes:

- 1 Insolion GRE gasket
- 2 G10 bolt sleeves
- 3 G10 washers
- 4 Metallic backup washers in zinc plated carbon steel or stainless steel



TEMPERATURE

Maximum Temperature:
+120°C (+248°F)

Minimum Temperature:
-128°C (-200°F)



PRESSURE

Maximum Pressure:
5 MPa/50 bar (725 psi)
(ASME Class 300, PN40)

Typical physical properties

GRE laminate

GRE material is Type-approved to NEMA LI-1 G10 standards, and conform to BS EN 60893-3-2-EPGC201.

| Property | Test method | Parameters | Typical physical property |
|-----------------------|-------------|------------|-------------------------------|
| Water absorption | ISO 62 | mg | Maximum 22.0 |
| Electric strength | IEC 60243-1 | kV/mm | Minimum 15 |
| Breakdown voltage | IEC 60243-1 | kV | Minimum 80 |
| Insulation resistance | IEC 60167 | MΩ | Minimum 5.0 x 10 ⁴ |
| Compressive strength | ASTM D 695 | MPa | Minimum 345 |
| Impact strength | ASTM D 229 | ft.lb/in | Minimum 12.0 |
| Tensile strength | ASTM D 638 | MPa | Minimum 345 |
| Shear strength | ASTM D 732 | MPa | Minimum 152 |

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Health warning: If PTFE products are heated to elevated temperatures, fumes will be produced which may give unpleasant effects, if inhaled. Whilst some fumes are emitted below 300°C (572°F) from PTFE, the effect at these temperatures is negligible. Care should be taken to avoid contaminating tobacco with particles of PTFE or PTFE dispersion, which may remain on hands or clothing. Safety Data Sheets (SDS) are available on request.

Information given in this publication is given in good faith and represents the results of specific individual tests carried out by James Walker or third parties in accordance with the methodologies described in this publication, performed in a laboratory. No representation or warranty is given in relation to such information. Values and/or operating limits given in this publication are not an indication that these values and/or operating limits can be applied simultaneously. While such results may comprise useful additional information and are industry standard tests, they are no substitute for conducting (or procuring from James Walker) your own tests and engineering analysis and satisfying yourself as to the suitability of the product you select. Please also note that a product tested in accordance with the published methodology may not perform to such values in application and/or under different test conditions or methodologies for a variety of reasons, including but not limited to the environment in which it is used/tested or which passes through it or otherwise affects the product, or due to the handling, storage or installation, or due to the effect of housing or other parts. Our personnel will be happy to discuss any historical examples we have of a product having been previously used in a particular application.

To ensure you are working with the very latest product specifications, please consult the relevant section of the James Walker website: www.jameswalker.biz.

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