



GUARDIAN PREMIUM IPT

Composition

- Gasket: Bi-axially oriented PTFE
 - Thickness 1.50 ÷ 3.00 mm
- Insulating sleeves
 - Thickness: 0.90÷1.10 mm
 - Option A: GRE G10 (FR4)
 - Option B: GRE G11 (FR5)
- Insulating washers
 - Thickness: 3.00 mm
 - Option A: GRE G10 (FR4)
 - Option B: GRE G11 (FR5)
- Metallic Washers
 - Thickness: 3.00 mm
 - Option A: Zinc Plated Carbon Steel
 - Option B: Other metals on request

Characteristics

For the technical characteristics of Planiflon™ B13, please refer to the following technical data sheet: [ptfe-jointing-sheet-planiflon-b13](#)

Applications

Insulating kit for flanges.

Tech Data

| TEST METHOD | FEATURES | G10 (FR4) ⁽⁴⁾ | G11 (FR5) ⁽⁴⁾ | PTFE ⁽²⁾ |
|-------------|--------------------------------------|--------------------------|--------------------------|---------------------|
| D149 | Dielectric Strength KV/mm Short Time | -29,5÷31,50 | 21,5 | 16,9 |
| D695 | Compressive Strength (MPa) | 448,0 | 434,0 | 160,0 |
| D638 | Tensile Strength (MPa) | 344,0 | 290,0 | 10,0 |
| D570 | Water Adsorption (%) | 0,1 | 0,1 | 0,01 |
| -- | Temperature - Operating °C | -150÷150 | -75÷200 | -200÷260 |

| TEST METHOD | FEATURES | Phenolic ⁽⁴⁾ | Phenolic Rubber Faced ⁽³⁾ | Mylar ^R (1) | Nomex ^R (1) |
|-------------|--------------------------------------|-------------------------|--------------------------------------|------------------------|------------------------|
| D149 | Dielectric Strength KV/mm Short Time | 20,0 | 20,0 | 15,8 | 18,0 |
| D695 | Compressive Strength (MPa) | 172,0 | 172,0 | - | - |
| D638 | Tensile Strength (MPa) | 138,0 | 138,0 | 69,0 | 620,0 |
| D570 | Water Adsorption (%) | 1,6 | 1,6 | 0,8 | 7,0 |
| -- | Temperature - Operating °C | -50÷100 | -40÷100 | -50÷150 | -50÷230 |

Note (1): Material available only for sleeves.

Note (2): Material available for retainer and sealing element.

Note (3): Material available for washer.

Note (4): Material available for sleeve and washer.

| Gasket Pressure range | | Sealing Element - Temperature range | |
|----------------------------|-------------|-------------------------------------|--------------|
| ASME Gasket Pressure Range | 150÷300 lbs | PTFE | -200°C÷260°C |
| PN Gasket Pressure Range | PN2,5÷PN40 | | |

* The maximum operating temperature of the kit is the lowest among its individual components.

* Customized kits are available with tailored thickness and component materials.



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This insulating flange kit uses Planiflon™ B13 as the sealing and electrical insulating element. This modified, bidirectionally oriented PTFE minimizes relaxation and creep effects typical of these gaskets, ensuring high reliability even in the most demanding applications. Planiflon™ B13 can be used on RF and FF flanges, offering broad chemical compatibility across the full pH 0-14 range.

This kit can be used up to 200°C, with pressure ranges up to 600 lbs and PN100 for sizes up to 3" and DN80, and in ASME 150-300 lbs and PN 2,5-40 ratings for larger sizes. The use of GRE G10 (FR4) sleeves and washers is always recommended, as compared to other solutions (ex. phenolic), it has a much lower hygroscopic factor. This ensures full sealing efficiency throughout the entire service life, preventing malfunctions caused by loss of mechanical load due to washer degradation.

* In the standard configuration, the kit is supplied with insulating sleeves and washers in GRE G10 (FR4).

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