GUARDIAN PREMIUM IS

Composition

- Retainer
  - Thickness: 3.00 mm
    - Option A: G10 (FR4)
    - Option B: G11 (FR5)
- Sealing Element
  - Thickness: 1.00 mm
    - Option A: PTFE
    - Option B: NBR
    - Option C: FKM
- 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

Applications

Insulating kit for flanges.

Tech Data

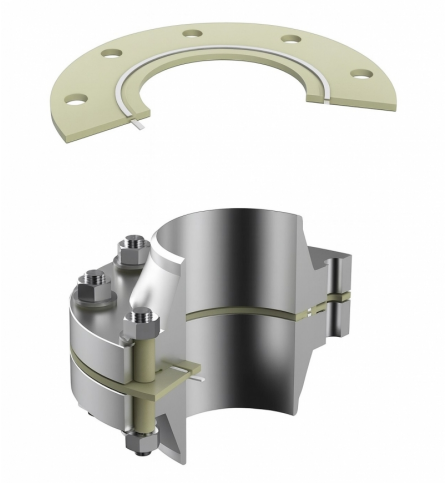
TEST METHOD	FEATURES	Mylar® (1)	Nomex® (1)	G10 (FR4)(2)	G11 (FR5)(2)
D149	Dielectric Strength KV/mm Short Time	15,8	18,0	29,5÷31,50	21,5
D695	Compressive Strength (MPa)	-	-	448,0	434,0
D638	Tensile Strength (MPa)	69,0	620,0	344,0	290,0
D790	Flexural Strenght (MPa)	89,0	124,0	448,0	414,0
D732	Shear Strenght (MPa)	60,0	35,0	145,0	145,0
D570	Water Adsorption (%)	0,8	7,0	0,1	0,1
D257	Volume Resistivity (Ω*cm)	10^{14}	10^{12}	10^{13}	10^{13}
--	Temperature - Operating °C	-50÷150	-50÷230	-150÷150	-75÷200

Note (1): Material available only for sleeves.
Note (2): Material available for retainer, sleeve and washer.

Gasket Pressure range	
ASME Gasket Pressure Range	150÷1500 lbs
API Gasket Pressure Range	2000÷5000 psi
PN Gasket Pressure Range	PN2,5÷PN250

Sealing Element - Temperature range	
PTFE	-200°C÷260°C
NBR	-40°C÷120°C
FKM	-29°C÷200°C

* The maximum operating temperature of the kit is the lowest among its individual components.
* Customized kits are available with tailored thickness and component materials.



Guardian Premium IS

Guardian Premium IS flange isolation kits do not use any metallic retainers, as **GRE (Glass Reinforced Epoxy)** acts both as the retainer and the insulator.

The gasket can be used on RF, FF, and also RTJ flanges, replacing the inefficient phenolic Ring Joints.

The sealing element can be made of **PTFE**, nitrile rubber (**NBR**), or fluorinated rubber (**FKM**).
The gasket groove is designed to prevent retainer breakage in case of overstress and to enhance the elasticity of the sealing element.

Guardian Premium IS is suitable for use up to 200°C, depending on the selected GRE, in ANSI 150 - 1500#, API 2 - 5K#, and PN 2,5 - 250# ratings.

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

The information provided in this publication, as well as that supplied to users in other forms, is based on our experience and communicated according to the best knowledge available. However, since numerous factors beyond our knowledge and control may influence the use of the products, no warranty, explicit or implicit, is given regarding such content. The operating limits indicated do not constitute confirmation that these values can be applied simultaneously. Avoid using the product at the maximum temperature and pressure limits. The maximum temperature is sustainable only for short periods under specific conditions. Specifications may be changed without notice. The images in the DS may not exactly represent the product, its color and/or marking.

CARRARA® GLOBAL SEALING SOLUTIONS

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