

INNOVATIVE ENGINEERING FOR CORROSION PROTECTION

The GPT VCXT™ flange insulating kit is comprised of an insulating gasket, insulating sleeves, insulating washers and metal backing washers. The insulating gasket is constructed from a machined metal core utilizing a serrated profile. The metal core is faced with THERMa-PUR™, a proprietary high temperature sealing material that out performs vermiculite. Correct gasket location is ensured by the use of a Garlock 5500 spacer ring, located around the periphery of the serrated metal core.

SERVICE:

GPT™ high temperature flange insulation sets are specifically designed to create a seal and maintain electrical isolation across a wide range of seating stresses and flange classes in elevated temperature service. They can be utilized in load compromised connections; such as damaged and/or lined flanges and also heavily bolted connections where significant gasket stresses may be generated. In addition the relatively high compression characteristics of the facing material ensure both seal and isolation performance can be achieved over a wide range of flange surface finishes. The use of THERMa-PUR™ as the sealing material pushes the performance of the GPT VCXT™ insulation kit beyond the temperature capability of traditional insulation sets based on vermiculite or glass/epoxy sealing technology. THERMa-PUR™ is designated as fire safe, complying with the requirements of the oil and gas industry recognized API 607 and API 6FB fire tests.

Operational pressure range:

- » Full vacuum to ASME B16.5 1500lb

Operational temperature range:

- » -328°F to 770°F (-200°C to 410°C)

THERMa-PUR™ is suitable for sealing across a wide range of chemicals (pH 0-14) and sweet and sour gaseous and liquid hydrocarbons.

Standard core and washer metallurgy are NACE (MRO175) compliant.

The insulating gasket and washers have been designed and developed for use in standard pipeline flanges where both cathodic protection and high integrity sealing are required at elevated service temperatures. For non-standard bolted connections please consult your regional Garlock sales manager.

TYPICAL PHYSICAL PROPERTIES:

Insulating Gasket & Washers:	4mm (316SS Core) 0.75mm (x2)
Core Thickness Facing Thickness	(Facing)
Factor (m) ASME Minimum	4.00
Seating Stress (Y)	3625 psi (25 MPa)
Dielectric Strength (ASTM D149a)	9.8 kV/mm
Mica Insulating Sleeves:	
Maximum Temperature Dielectric Strength	+500°C 20.0 kV/mm
Metallic Backing Washers:	
Stainless Steel	0.125" thk

Other washer material can be provided to suit the application.



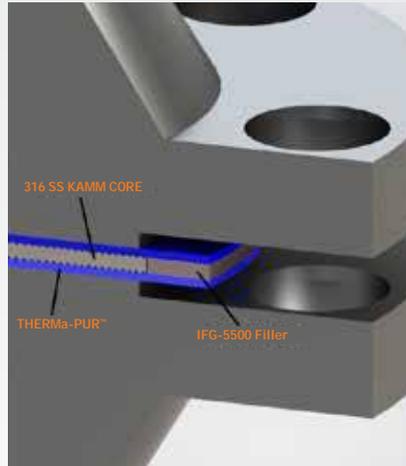
GPT VCXT™

GENERAL ASSEMBLY:

Each GPT VCXT™ insulating set comprises the following components:

High Temperature Insulating Gasket 1 per flange. High Temperature Insulating Sleeves 1 per flange bolt. High Temperature Insulating Washers 2 per flange bolt. Metallic Backing Washers 2 per flange bolt.

Please contact your Garlock sales manager when specific operating parameters requires confirmation of appropriate materials.



IMPROVED ATTRIBUTES:

ATTRIBUTE	OLD VCXT™	NEW VCXT™
Temperature Rating	715 °F (380 °C)	770 °F (410 °C)
Blowout Rating	2,129 psi	4,147 psi
Steam Test (hrs. performance @ 407 °F (208 °C))	5,238	6,285
Electrical Test @ 5000V DC	24Mohm	35Gphms



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