TEADIT®

Sealing for a safer and greener tomorrow

GR 1701

High Temperature Graphite Sheet with Multiple Foil Inserts

Properties

TEADIT® GR1701 is a multilayer, high-strength gasket sealing sheet **designed for high-temperature flat gasket applications**. The sheet is comprised of 0.020" thick layers of highly oxidation resistant flexible graphite and 0.002" thick inserts of 316L stainless steel foil. Teadit® GR1701 combines the outstanding weight loss characteristics of oxidation inhibited grade flexible graphite and reinforcing layers of metal.

The layers of graphite and stainless steel sheets are connected to each other with high strength using a special process. The impregnation of the sealing plate reduces leakage, improves handling and provides excellent "anti-stick" capabilities when removed from the flanges.

Gaskets made from this type of sheet perform well in critical applications due to high mechanical strength and blow-out resistance. GR1701 has working pressure resistance up to 3600 psi (250 bar), excellent chemical resistance, very low cold or hot relaxation, and a maximum permissible gasket stress. Among its advantages, there is good conformation to sealing surfaces, excellent torque retention and high sealability. The thermal stability of GR1700 is superior to that of standard grades of graphite foil.

Application

Teadit® GR1701 is commonly used in pipe flanges, equipment and pressure vessels; non-typical geometry flanges tongue/groove and heat exchanger flanges. It is also suitable for use in the manufacture of gaskets for sight glass, pumps, fittings and valves, etc.

Typical Physical Properties:

Bulk Density - g/cm^3	1.1
Compressibility	35%
Recovery	15%
Stress Relaxation	≤45 MPA
Hot Creep	≤3%
Carbon Content	≥99%
Ash Content	≤1%
Total sulfur - ppm	<300
Total chloride - ppm	≤25
Total fluoride - ppm	≤10
Thermogravimetric Analysis (TGA)	≤3%
Number of Inserts	
Number of 316L SS foil Inserts 1/16 thk	2
Number of 316L SS foil Inserts 1/8 thk	5

Availability	Size: 59.1 x 59.1 in
	Thickness: 1/16", 1/8"
Temperature	Minimum: - 418°F (-250°C)
	Maximum: approximately 1202°F (650°C)
	Continuous Max.: 842°F (450°C)
Pressure	3600 psi (250 bar)

	"m"	"y" (psi)
1/16" thk.	2.5	3000
1/8" thk.	3.2	3000

PVRC Parameters Gb, a and Gs								
Gb	a	Gs	Tpmin	Tpmax	S100	S1000	S3000	S10000
1,349	0.310	0.0004	310	13,003	5,633	11,511	16,187	23,521

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