

Supagraf® T10X

High temperature / high pressure
high grade sealing system with tanged core

Supagraf® T10X is a highly oxidation resistant, tanged stainless steel reinforced flexible graphite gasket combining high quality flexible graphite with stainless steel reinforcement.

Supagraf T10X is made of high oxidation resistant graphite foils which are mechanically attached to the stainless steel without using adhesives.

Application guidelines

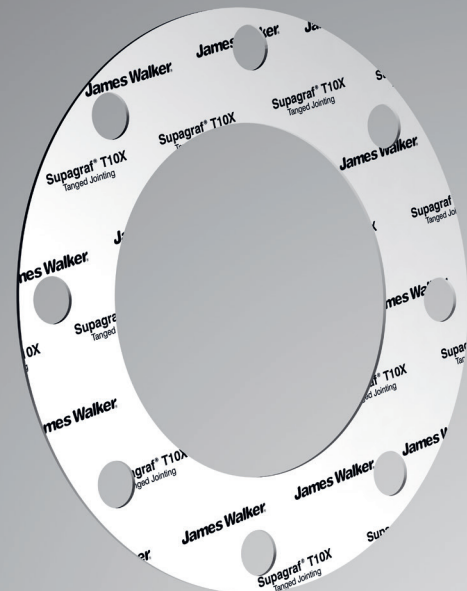
- Piping flange gaskets, heat exchangers, boilers, reactors, vessels and OEM equipment.
- Compatible with HP steam, hydrocarbons and a wide range of chemicals within HPI and CPI industries.
- High pressures (up to 102 bar).
- Suitable for ASME, EN, JIS, DIN flanges.

Features and benefits

- High grade graphite >98% carbon content.
- 316L stainless steel core with mechanical tanged laminating system.
- Suitable up to ASME Class 600 or PN100 piping applications.
- Suitable for high gasket stress applications.
- Available in thicknesses from 1.0 mm to 3.0 mm.
- Sheet size of 1500 x 1500 mm gaskets can be produced up to a diameter of 1500 mm in one piece.

Notes

The operational life span of graphite at high temperatures might be limited due to media or environmental influences. For continuous exposure in oxidising environments above +450°C consult with James Walker's Technical function.



TEMPERATURE

Maximum Temperature: (see notes section)

+500°C (+932°F)

Minimum Temperature:

-196°C (-321°F)



PRESSURE

Maximum Pressure:

10.2 MPa/102 bar (1480 psi)

APPROVALS



API 6FB fire safe approved



MESC SPE 85/203 compliant

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Typical material properties					
Thickness	mm	1.0	1.5	2.0	3.0
Bulk density of graphite	g/cm ³	1.0	1.0	1.0	1.0
Number of steel layers		1	1	1	1
ASTM material number		316L	316L	316L	316L
Steel thickness	mm	0.1	0.1	0.1	0.1
Carbon content	%	≥ 98	≥ 98	≥ 98	≥ 98
Ash content	%	≤ 2	≤ 2	≤ 2	≤ 2
Compressibility (ASTM F36)	%	35	40	40	40
Recovery at 20°C (ASTM F36)	%	5	5	5	5
Hot Creep at 300°C	%	≤ 4	≤ 4	≤ 4	≤ 4
Total sulphur	ppm	< 750	< 750	< 750	< 750
Total chloride	ppm	≤ 50	≤ 50	≤ 50	≤ 50
Total halogen	ppm	≤ 310	≤ 310	≤ 310	≤ 310
Total fluorine	ppm	≤ 10	≤ 10	≤ 10	≤ 10
Oxidation rate in air @ 670°C (1238°F) TGA	% / Hr	≤ 4.0	≤ 4.0	≤ 4.0	≤ 4.0
ASME design factor 'm'		2.5	2.5	2.5	2.5
ASME design factor 'y'	MPa	20.7	20.7	20.7	20.7