

TECHNICAL BULLETIN

KLINGER Maxiflex Material Quality

KLINGER Maxiflex spiral wound gaskets are manufactured using high-grade materials. Metallic components are sourced from Western European or U.S. suppliers. Guide ring and sealing element thickness are in accordance with ASME B16.20.

The quality of the filler material is important to the sealing performance and longevity of spiral wound gaskets. Therefore, KLINGER uses high-grade, inhibited graphite to reduce the level of oxidation in high temperature service and to reduce the likelihood of corrosion. The high-temperature performance does not just depend on the graphite purity alone: 98% purity graphite can be misleading. 98% purity graphite plus inhibitor has a much broader temperature range.

GRAPHITE SPECIFICATION

Physical Property	Unit	KLINGER Grade
Bulk Density Range	g/cm ³	0.7 - 1.3
Standard Bulk Density	g/cm ³	0.7 / 1
Carbon Content	%	≥ 99.0
Ash Content	%	≤ 1.0
Total Sulphur Content	ppm	< 500
Total Bromide Content	ppm	< 10
Total Iodide Content	ppm	< 10
Total Chloride Content	ppm	≤ 10
Leachable Chlorides	ppm	< 10
Total Fluoride Content	ppm	≤ 10
Leachable Fluorides	ppm	< 10
Oxidation Resistance (TGA) - 4 hours @ 670°C	% weight loss/hour	≤ 4

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.

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