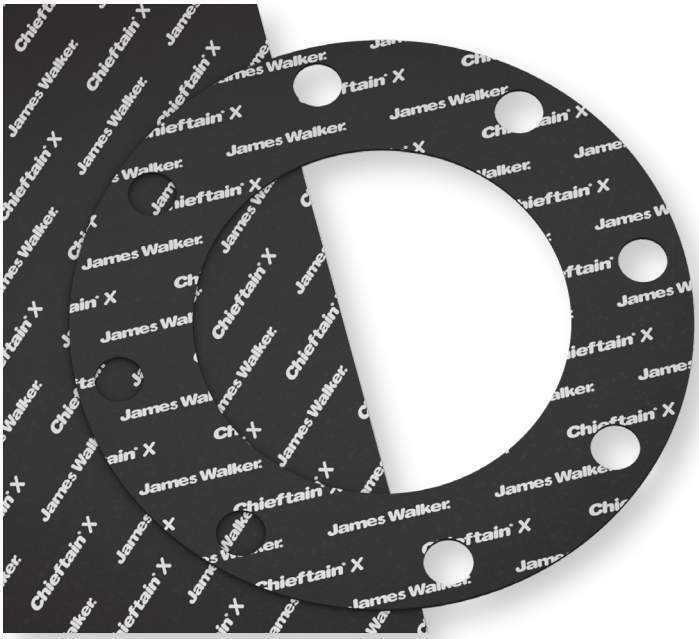
James Walker®

Chieftain® X

Issue 1



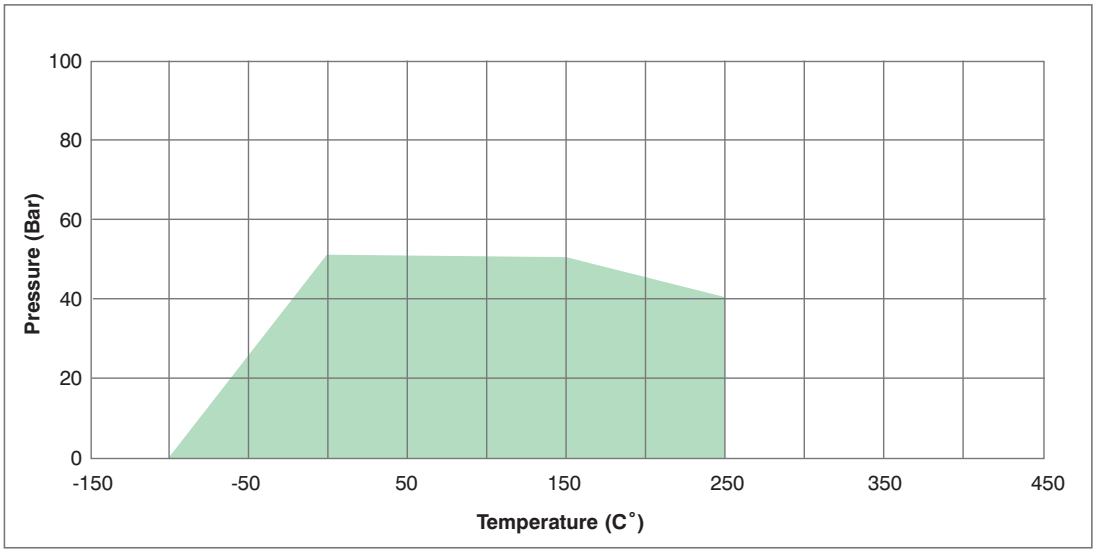
Description

Chieftain® X is a high performance BS7531 Grade X sheet jointing, based on graphite reinforced with aramid fibres with a nitrile (NBR) binder. The unique blend of aramid fibres and graphite results in a gasket material with exceptional leakage resistance and residual stress levels. The material is supplied with an anti-stick finish to both surfaces as standard, which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time.

Application Guidelines

- A soft cut gasket for extreme applications in general industry
- Media compatibility with oils, fuels and hydrocarbon compounds
- Can be used on the majority of flange specifications including ASME, API, EN, BS and DIN
- Excellent resistance to acids, alkalis, solvents, refrigerants, water and steam

Temperature	Maximum	+450°C
	Minimum	-200°C
Pressure	Maximum	102.1 Bar (1480.8psi, 10.21MPa) (ASME B16.5 Class 600)



Pressure x Temperature curve indicates the service limits considering the simultaneous influence of temperature and pressure. The green area represents the normal service limits for non-critical media (excluding steam) for 2mm thick material.

For other thicknesses these limits may vary. James Walker would strongly suggest that for all applications that fall outside of the green area you seek guidance from James Walker to assess the suitability of the material in your specific application.

Media compatibility has not been assumed and may influence the service limits in a specific application. Please contact James Walker for confirmation of suitability.

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Typical Physical Properties

Property	Test Method	Parameters	Typical Physical Property
Colour	-	-	Black
Density	DIN 28090-2		1.65g/cm^3
Compressibility	ASTM F36J	34.5 MPa	10%
Recovery	ASTM F36J	34.5 MPa	50%
Tensile Strength (Transverse)	DIN 52910	-	9 MPa (1305.3psi)
Residual Stress	DIN 52913 (2mm thick sample)	175°C	34 MPa (4931.2 psi)
		300°C	30 MPa (4351.1 psi)
	BS 7531 (1.5mm thick Sample)	300°C	34 MPa (4931.3psi)
Leachable Chloride Content	ISO 10304-1		< 100 ppm

Typical Performance

Property	Test Method	Parameters	Typical Physical Property
Leakage Rate	DIN 3535-6	N_2, 40bar	< 0.1 mg/m/s

Fluid Resistance (2mm Sample)			
IRM 903 Weight Change	ASTM F146	5Hr@150°C	12%
IRM 903 Thickness Change		5Hr@150°C	5%
ASTM Fuel B Weight Change	ASTM F146	5Hr@23°C	10%
ASTM Fuel B Thickness Change		5Hr@23°C	5%

Gasket material performance is ultimately dependent on the use of the correct flange design standards and fitting procedures plus appropriate gasket design and manufacturing process.

Availability

Sheet Size	2000mm x 1500mm
Thickness	0.75, 1.0, 1.5, 2.0, 3.0mm

Information

Information given in this publication is given in good faith and represents the results of specific individual tests performed in a laboratory by James Walker or third parties in accordance with the methodologies described in this publication. No representation or warranty is given in relation to such information.

Values and/or operating limits given in this publication are not an indication that these values and/or operating limits can be applied simultaneously. While such results may comprise useful additional information and are industry standard tests, they are no substitute for conducting your own tests and engineering analysis and satisfying yourself as to the suitability of the material or product you select.

Please also note that a material or product tested in accordance with the quoted methodology may not perform to such values in application and/or under different test conditions or methodologies for a variety of reasons. These include, but are not limited to the environment to which it is exposed, storage, handling and installation processes, interactions with housings and other parts or, in the case of materials, the design of any product made from that material.

Our personnel will be happy to discuss any historical examples we have of the material or product having been previously used in a particular application.

To ensure you are working with the very latest product specifications, please consult the relevant section of the James Walker website: www.jameswalker.biz.

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