Centurion® X

Glass and aramid fibre base with nitrile binder

Centurion® X is a high performance sheet jointing based on glass and aramid fibres with a nitrile (NBR) binder, and complies with the test requirements of BS 7531 Grade X.

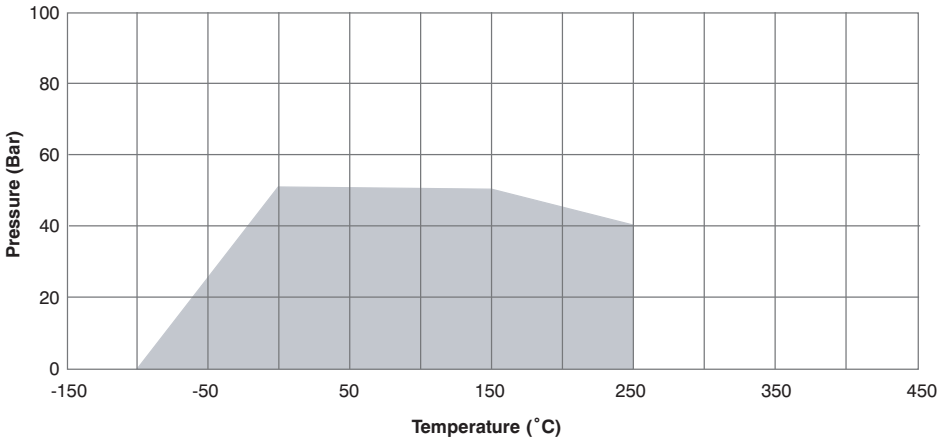
The material is supplied with an anti-stick finish to both surfaces as standard, which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time.

Application Guidelines

- 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 solvents, refrigerants, water and steam

TA Luft

Complies with the tightness criteria of 10^{-4} mbar.l/m.s of VDI Guideline 2200 and VDI Guideline 2440.



Pressure versus temperature capability graph

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

For other thicknesses these limits may vary. James Walker would strongly suggest that for all applications that fall outside of the shaded 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.

TEMPERATURE

Maximum Temperature:
+450°C (+842°F)
Minimum Temperature:
-200°C (-328°F)

PRESSURE

Maximum Pressure:
10 MPa/100 bar (1450 psi)
ASME B16.5 Class 600

APPROVALS

WRAS approved for use with cold potable water up to 23°C (73°F).

James Walker

Centurion® X

Glass and aramid fibre base with nitrile binder

Typical physical properties

Property	Test method	Parameters	Typical physical property
Colour	-	-	White
Density	DIN 28090-2	-	1.85g/cm^3
Compressibility	ASTM F36J	34.5 MPa	7%
Recovery	ASTM F36J	34.5 MPa	62%
Tensile strength (Transverse)	DIN 52910	-	9 MPa (1300 psi)
Residual stress	DIN 52913 (2 mm Thickness Sample)	175°C / 50 MPa	38 MPa (5510 psi)
		300°C / 50 MPa	28 MPa (4060 psi)
	BS 7531 (1.5 mm Thick Sample)	300°C / 40 MPa	33 MPa (4790 psi)
Leachable chloride content	ISO 10304-1		< 100 ppm

Typical performance

Leakage rate	DIN 3535-6	N_2, 40 bar	< 0.1 mg/m/s

Fluid resistance (2 mm sample)			
IRM 903 weight change	ASTM F146	5 Hr@150°C	7%
IRM 903 thickness change		5 Hr@150°C	2%
ASTM fuel B weight change	ASTM F146	5 Hr@23°C	9%
ASTM fuel B thickness change		5 Hr@23°C	4%

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	Thickness
1500 mm x 1500 mm; Other sizes can be considered upon request	0.5, 0.8, 1.0, 1.5, 2.0, 3.0 mm

Chieftain® X

Graphite reinforced with aramid fibre and nitrile binder

Chieftain® X is a high performance sheet jointing based on graphite reinforced with aramid fibres with a nitrile (NBR) binder, and complies with the test requirements of BS7531 Grade X.

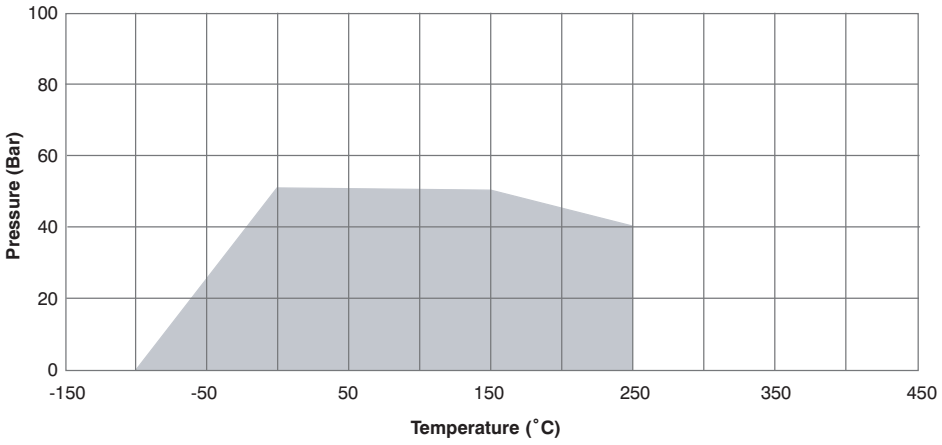
The unique blend of aramid fibres and graphite results in a gasket material with exceptional leakage resistance and residual stress levels. The material is supplied with an anti-stick finish to both surfaces as standard, which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, 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

TA Luft

Complies with the tightness criteria of 10^{-4} mbar.l/m.s of VDI Guideline 2200 and VDI Guideline 2440.



Pressure versus temperature capability graph

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

For other thicknesses these limits may vary. James Walker would strongly suggest that for all applications that fall outside of the shaded 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.

TEMPERATURE

Maximum Temperature:
+450°C (+842°F)
Minimum Temperature:
-200°C (-328°F)

PRESSURE

Maximum Pressure:
10 MPa/100 bar (1450 psi)
ASME B16.5 Class 600

James Walker

Chieftain® X

Graphite reinforced with aramid fibre and nitrile binder

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 (1300 psi)
Residual stress	DIN 52913 (2 mm Thickness Sample)	175°C / 50 MPa	34 MPa (5510 psi)
		300°C / 50 MPa	30 MPa (4060 psi)
	BS 7531 (1.5 mm Thick Sample)	300°C / 40 MPa	34 MPa (4790 psi)
Leachable chloride content	ISO 10304-1		< 100 ppm

Typical performance

Leakage rate	DIN 3535-6	N_2, 40 bar	< 0.1 mg/m/s

Fluid resistance (2 mm sample)			
IRM 903 weight change	ASTM F146	5 Hr@150°C	12%
IRM 903 thickness change		5 Hr@150°C	5%
ASTM fuel B weight change	ASTM F146	5 Hr@23°C	10%
ASTM fuel B thickness change		5 Hr@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	Thickness
2000 mm x 1480 mm; Other sizes can be considered upon request	0.8, 1.0, 1.5, 2.0, 3.0 mm

Sentinel® X

Compressed aramid fibres with functional fillers and nitrile binder

Sentinel® X is James Walker's general purpose sheet jointing and complies with the test requirements of BS7531 Grade Y.

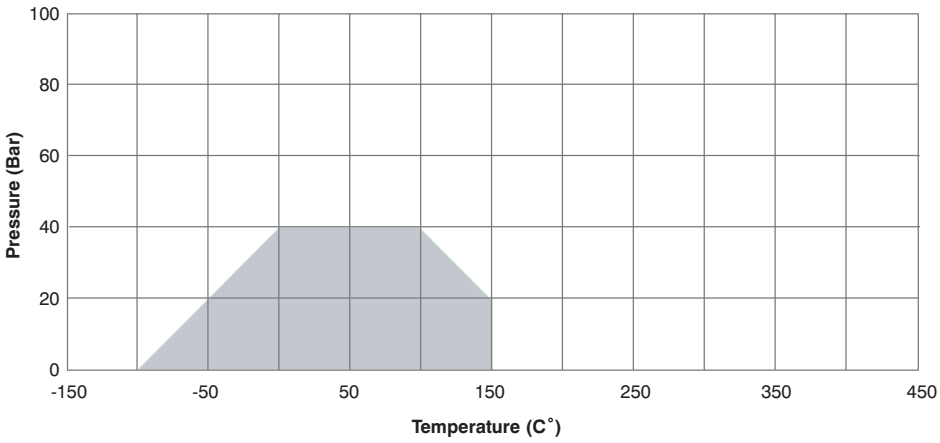
It is comprised of compressed aramid fibres and a combination of other functional fillers with a nitrile (NBR) rubber binder. The material is supplied with an anti-stick finish to both surfaces as standard, which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time.

Application Guidelines

- Media compatibility with oils, fuels and hydrocarbon compounds
- Resistance to solvents, refrigerants, water and steam
- Can be used on the majority of flange specifications including ASME, API, EN, BS and DIN

TA Luft

Complies with the tightness criteria of 10^{-4} mbar.l/m.s of VDI Guideline 2200 and VDI Guideline 2440.



Pressure versus temperature capability graph

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

For other thicknesses these limits may vary. James Walker would strongly suggest that for all applications that fall outside of the shaded 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.

TEMPERATURE

Maximum Temperature:
+400°C (+752°F)
Minimum Temperature:
-200°C (-328°F)

PRESSURE

Maximum Pressure:
10 MPa/100 bar (1450 psi)
ASME B16.5 Class 600

APPROVALS

WRAS approved for use with cold and hot potable water up to 85°C (185°F).

James Walker

Sentinel® X

Compressed aramid fibres with functional fillers and nitrile binder

Typical physical properties

Property	Test method	Parameters	Typical physical property
Colour	-	-	Yellow
Density	DIN 28090-2	-	1.85g/cm^3
Compressibility	ASTM F36J	34.5 MPa	9%
Recovery	ASTM F36J	34.5 MPa	45%
Tensile strength (Transverse)	DIN 52910	-	7.5 MPa (1090 psi)
Residual stress	DIN 52913 (2 mm Thickness Sample)	175°C / 50 MPa	27 MPa (3916 psi)
		300°C / 50 MPa	22 MPa (3190 psi)
	BS 7531 (1.5 mm Thick Sample)	300°C / 40 MPa	28 MPa (4060 psi)
Leachable chloride content	ISO 10304-1		< 100 ppm

Typical performance

Leakage rate	DIN 3535-6	N_2, 40 bar	< 0.1 mg/m/s

Fluid resistance (2 mm sample)			
IRM 903 weight change	ASTM F146	5 Hr@150°C	10%
IRM 903 thickness change		5 Hr@150°C	4%
ASTM fuel B weight change	ASTM F146	5 Hr@23°C	11%
ASTM fuel B thickness change		5 Hr@23°C	9%

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	Thickness
2000 mm x 1500 mm; Other sizes can be considered upon request	0.5, 0.8, 1.0, 1.5, 2.0, 3.0 mm

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West Yorkshire, BD22 6BN

NEED ADVICE?

TALK TO A TECHNICIAN

Our highly experienced technicians can advise you on the best sheet materials and manufacturing processes for a wide range of gasket applications.

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