

# 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.**

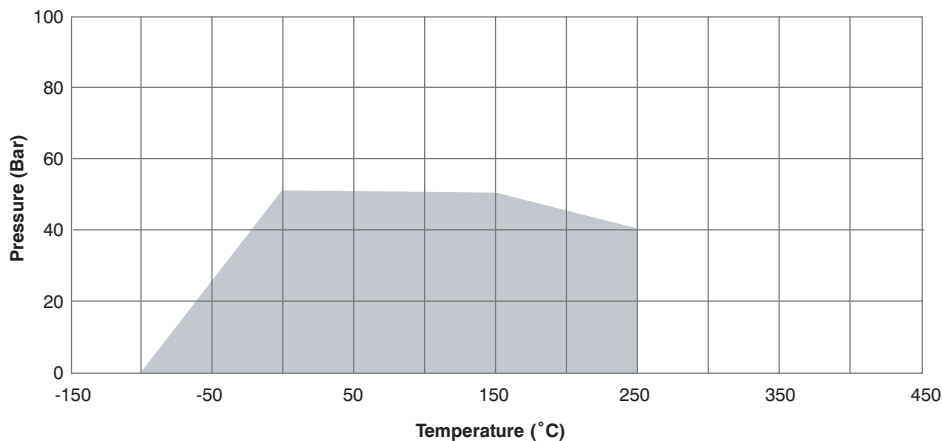
The material is supplied with an anti-stick finish to both surfaces as standard, which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time.

## 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.

**James Walker**



## 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 and hot potable water up to 85°C (185°F).

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## Typical physical properties

Property	Test method	Parameters	Typical physical property
Colour	-	-	White
Density	DIN 28090-2	-	1.85g/cm <sup>3</sup>
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 <sub>2</sub> , 40 bar	< 0.1 mg/m/s
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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

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