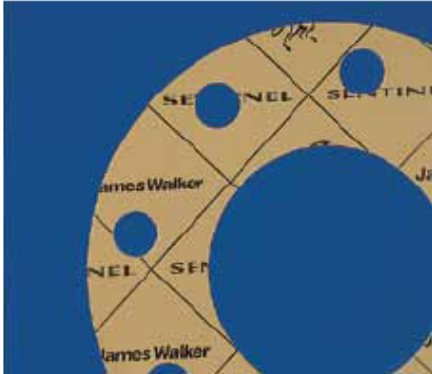


# Non-asbestos sheet jointings

## Sentinel®



### Description

Sentinel® is James Walker's general purpose sheet jointing. It comprises compressed aramid fibres with nitrile rubber (NBR) binder. An anti-stick finish to both surfaces is supplied as standard.

### Prime features

- Replaces CAF for most industrial duties up to 400°C.
- Suitable for wide range of media.
- Offers outstanding performance for its class.

### Specifications

- Exceeds the property requirements of BS 7531 Grade Y.
- WRAS approved for use with cold and hot potable water up to 85°C.

### Physical properties

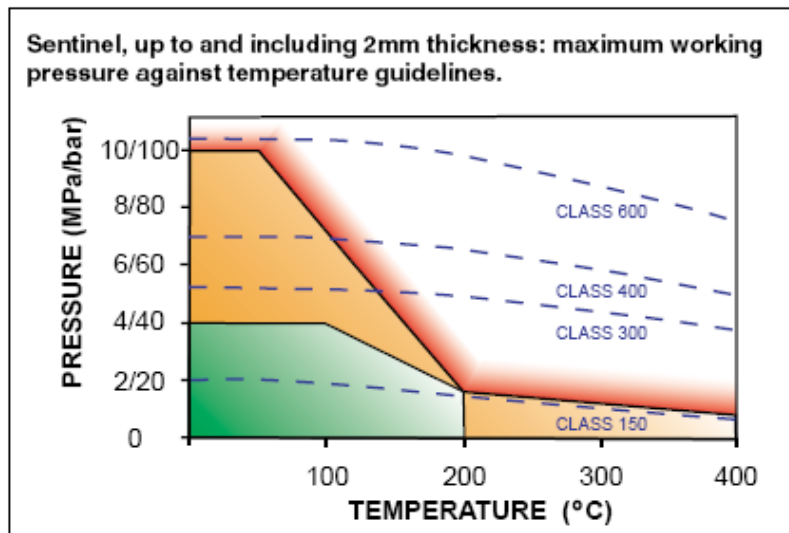
(Typical values for 1.5mm thick material)

Density, Mg/m <sup>3</sup>	1.6	
Transverse tensile strength, MPa	8.0	(ASTM F15A)
Residual stress, MPa	25.0	(BS 7531)
Compressibility, %	10.0	(BS 7531)
Recovery, %	45.0	(ASTM F36J)
Gas permeability, ml/min	<1.0	(BS 7531)
Leachable chloride ion content, ppm	<100	

### Fluid immersion properties

IRM 903, % thickness increase, 5h @ 150°C	5.0	(BS 7531)
ASTM Fuel B, % thickness increase, 5h @ RT	6.0	(ASTM F146)
Water, % thickness increase, 5h @ 100°C	9.0	(BS 7531)

### Service capability graph



### Service capability

For applications falling into the green zone, the product may normally be used without consultation. In the amber zone we recommend that our Technical Support Team be contacted for confirmation of suitability. If the pressure/temperature combination is in the red zone then we must be consulted before the product is used. Class lines refer to ASME B16.5.

### How supplied

Precision cut gaskets to any shape, size and quantity. In sheets 2.0m x 1.5m, 1.5m x 1.0m. Thicknesses: 0.5mm, 0.75mm, 1.0mm, 1.5mm, 2.0mm. Please note that 3.0mm is also available but is not recommended (see page 45 for advice on gasket use).

# Non-asbestos sheet jointings chemical suitability guide

● Suitable product.

Where chemical compatibility is not indicated, or a chemical is not listed, please consult our Technical Support Team for a recommendation to be made.

NON-ASBESTOS SHEET JOINTINGS	CHIEFTAIN®	CENTURION®	SENTINEL®	INCA	JW GYLON® 3504	JW GYLON® 3500	JW GYLON® 3510
STEAM	●	●	●	●	1MPa	1MPa	1MPa
STEAM CONDENSATE	●	●	●	●	●	●	●
WATER	●	●	●	●	●	●	●
AIR	●	●	●	●	●	●	●
ACETIC ACID	●	●	50%	50%	●	●	●
ACETONE	●	●	●	●	●	●	●
ACETYLENE	●	●	●	●	●	●	●
ADIPIC ACID	●	●	●	●	●	●	●
ALUMINIUM CHLORIDE	●	●	NO	●	●	●	●
AMMONIA (ANHYDROUS, DRY)	●	●	●	●	●	●	●
AMMONIA (WET)	●	●	NO	●	●	●	●
AMMONIUM CHLORIDE	●	●	NO	●	●	●	●
AMMONIUM HYDROXIDE	●	●	10%	●	●	●	●
ANILINE	●	●	●	●	●	●	●
BENZENE	●	●	●	●	●	●	●
BITUMEN & HEAVY BOTTOMS	●	●	●	●	●	●	●
BLACK LIQUOR	●	●	NO	●	NO	NO	●
BLEACH SOLUTIONS	●	●	NO	NO	●	●	●
BOILER FEED WATER	●	●	●	●	●	●	●
BRINE	●	●	●	●	●	●	●
BROMINE	NO	NO	NO	NO	●	●	●
BUNKER FUEL	●	●	●	●	●	●	●
BUTANE	●	●	●	●	●	●	●
CALCIUM CHLORIDE	●	●	●	●	●	●	●
CALCIUM HYDROXIDE	●	●	●	●	●	NO	●
CALCIUM HYPOCHLORITE	●	●	NO	NO	●	●	●
CARBON DIOXIDE	●	●	●	●	●	●	●
CARBON DISULPHIDE	NO	NO	NO	NO	●	●	●
CARBON TETRACHLORIDE	●	●	NO	NO	●	●	●
CHLORINE (DRY)	●	●	●	●	●	●	●
CHLORINE (WET)	●	NO	NO	NO	●	●	●
CHROMIC ACID	NO	NO	NO	NO	NO	NO	NO
CREOSOTE	●	●	●	●	●	●	●
DIESEL OIL	●	●	●	●	●	●	●
DIETHYL ETHER	●	●	●	●	●	●	●
DOWTHERM®	●	●	NO	NO	●	●	●
ETHANE	●	●	●	●	●	●	●
ETHANOLAMINES	●	●	●	●	●	●	●
ETHER	●	●	●	●	●	●	●
ETHYL ALCOHOL (Ethanol)	●	●	●	●	●	●	●
ETHYLAMINE	●	●	●	●	●	●	●
ETHYLENE	●	●	●	●	●	●	●
ETHYLENE GLYCOL	●	●	NO	●	●	●	●
ETHYLENE OXIDE	●	●	NO	NO	●	●	●
FERRIC CHLORIDE (WET)	NO	NO	NO	NO	●	●	NO
FLUORINE	NO	NO	NO	NO	NO	NO	NO
FORMALDEHYDE	●	●	●	●	●	●	●
FORMIC ACID	●	●	50%	10%	●	●	●
GASOLINE	●	●	●	●	●	●	●
GREEN LIQUOR	●	●	NO	NO	NO	NO	●
HEAVY OILS	●	●	●	●	●	●	●
HYDROBROMIC ACID	NO	NO	NO	NO	NO	●	●
HYDROCHLORIC ACID	NO	NO	NO	NO	NO	●	●
HYDROFLUORIC ACID	NO	NO	NO	NO	NO	NO	NO
HYDROGEN CHLORIDE GAS (DRY)	●	●	NO	NO	●	●	●
HYDROGEN PEROXIDE (<30%)	●	●	●	●	●	●	●
HYDROGEN SULPHIDE	●	●	NO	●	●	●	●
ISOPROPYL ALCOHOL	●	●	●	●	●	●	●
KEROSENE	●	●	●	●	●	●	●

NON-ASBESTOS SHEET JOINTINGS	CHIEFTAIN®	CENTURION®	SENTINEL®	INCA	JW GYLON® 3504	JW GYLON® 3500	JW GYLON® 3510
LINSEED OIL	●	●	●	●	●	●	●
LIQUID PETROLEUM GAS	●	●	●	●	●	●	●
LYE	●	●	NO	●	NO	NO	●
METHANE	●	●	●	●	●	●	●
METHYL ALCOHOL (Methanol)	●	●	●	●	●	●	●
METHYL CHLORIDE	●	●	●	●	●	●	●
METHYL ETHYL KETONE	●	●	●	●	●	●	●
METHYL TERTIARY BUTYL ETHER	●	●	●	●	●	●	●
METHYLATED SPIRITS	●	●	●	●	●	●	●
METHYLENE CHLORIDE	●	NO	NO	NO	●	●	●
MINERAL OILS	●	●	●	●	●	●	●
NAPHTHA	●	●	●	●	●	●	●
NATURAL GAS	●	●	●	●	●	●	●
NITRIC ACID	NO	NO	NO	NO	NO	●	●
NITROGEN	●	●	●	●	●	●	●
OCTANE	●	●	●	●	●	●	●
OLEUM	NO	NO	NO	NO	NO	●	NO
OXALIC ACID	●	●	NO	50%	●	●	●
OXYGEN	NO	NO	NO	NO	NO	NO	NO
PERCHLOROETHYLENE	●	●	●	●	●	●	●
PHENOLS	●	●	NO	NO	●	●	●
PHOSPHORIC ACID (50%)	●	●	NO	10%	NO	NO	●
POTASSIUM DICHROMATE (10%)	●	●	●	●	●	●	●
POTASSIUM HYDROXIDE (50%)	70°C	70°C	NO	NO	100°C	NO	●
PROPANE	●	●	●	●	●	●	●
PYRIDINE	●	●	NO	NO	●	●	●
RAPE SEED OIL	●	●	●	●	●	●	●
REFRIGERANT R12 (eg Freon® 12)	●	●	●	●	●	●	●
R22 (eg Freon® 22)	●	●	NO	NO	●	●	●
R134a (eg KLEA® 134a)	●	●	●	●	●	●	●
R404a (eg KLEA® 404a)	●	●	●	●	●	●	●
R407 series (eg KLEA® 407 series)	●	●	●	●	●	●	●
SEA WATER	●	●	●	●	●	●	●
SODA ASH	●	●	●	●	●	●	●
SODIUM CARBONATE	●	●	●	●	●	●	●
SODIUM DICHROMATE (10%)	●	●	●	●	●	●	●
SODIUM HYDROXIDE (50%)	70°C	70°C	NO	NO	100°C	NO	●
SODIUM HYPOCHLORITE	NO	●	NO	NO	●	●	●
STARCH	●	●	●	●	●	●	●
STYRENE	●	●	●	●	●	●	●
SULPHUR DIOXIDE (DRY)	●	●	NO	NO	●	●	●
SULPHUR DIOXIDE (WET)	NO	NO	NO	NO	●	●	●
SULPHUR TRIOXIDE	NO	NO	NO	NO	●	●	●
SULPHURIC ACID	NO	NO	NO	NO	NO	●	NO
TANNIC ACID	●	●	●	NO	●	●	●
TITANIUM DIOXIDE	●	●	●	●	●	●	●
TITANIUM TETRACHLORIDE	●	●	NO	NO	●	●	●
TOLUENE (TOLUOL)	●	●	●	●	●	●	●
TRANSFORMER OIL	●	NO	NO	NO	●	●	●
TRICHLOROETHANE	●	●	NO	NO	●	●	●
TRICHLOROETHYLENE	●	●	●	●	●	●	●
TURPENTINE	●	●	●	●	●	●	●
UREA	●	●	●	●	●	●	●
VINYL ACETATE	●	●	●	●	●	●	●
VINYL CHLORIDE	●	●	●	●	●	●	●
WHITE LIQUOR	●	●	NO	NO	NO	NO	●
WHITE SPIRIT	●	●	●	●	●	●	●
XYLENE	●	●	●	●	●	●	●

Due to the complexity of making a recommendation for any given duty, this section on chemical suitability is intended only as a guide. The possible effect of elevated temperatures should be considered when determining the compatibility of these products with a chemical. If necessary, please contact our Technical Support Team for assistance.