



Champion AF (Asbestos Free) Jointing Sheets and Gaskets

The Original Champion  **since 1959**



CHAMPION STYLE AF110 WATER

Champion Style AF110 is a reliable yet, cost-effective product manufactured from ecofriendly natural cellulose bonded with suitable mix of elastomers. Champion Style AF-110 Sheets are available in Non-Metallic and also in Metallic option (with wire reinforcement) with anti stick coating. Suitable for flanges with low bolt loading conditions.

IDENTITY COLOUR: BROWN or GRAPHITED BLACK with Anti-stick Coating

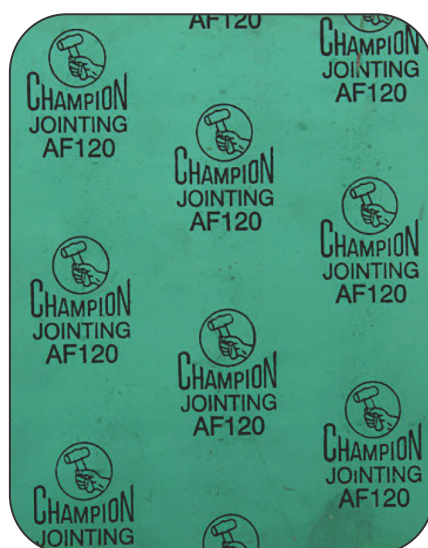
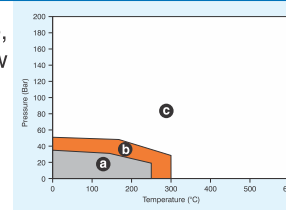
Media: Corrosive / non-corrosive gases, steam, condensate, water, air, oils, solvents and a wide range of other media (Low service conditions).

TECHNICAL DATA:

Max. Operating Pressure: 3.5 MPa / 35 Bar (507 psi)

Max. Short Term Service Temperature: 300°C / 540°F

Continuous Service Temperature: 250°C / 450°F



CHAMPION STYLE AF120 GP

Champion Style AF120 Non-Metallic is general purpose BS7531 Grade Y Asbestos-Free (AF) Jointing sheet. It is comprised of compressed aramid fibres and bonded with a combination of other functional fibres with a elastomer binder to create matrix of stability. Suitable for light industrial applications.

IDENTITY COLOUR: GREEN

Media: Water, gases, medium pressure steam, dilute acids, alkalis, solvents, refrigerants suitable for various medium service conditions.

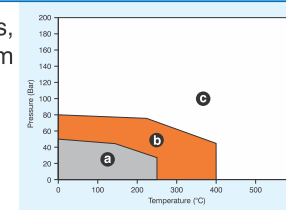
TECHNICAL DATA:

Max. Operating Pressure: 5 MPa / 50 Bar (725 psi)

Max. Short Term Service Temperature: 400°C / 752°F

Continuous Service Temperature: 250°C / 482°F

Operating Temperature for steam: 200°C / 392°F



CHAMPION STYLE AF120 METALLIC

Champion Style AF120 Metallic is general purpose Asbestos-Free (AF) Jointing sheet. It is comprised of compressed aramid fibres and bonded with a combination of other functional fibres with a elastomer binder with wire re-inforcement to create matrix of stability & anti-stick properties which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time.

IDENTITY COLOUR: GRAPHITED BLACK with Anti-stick Coating

Media: Water, gases, medium pressure steam, dilute acids, alkalis, solvents, refrigerants suitable for various medium service conditions.

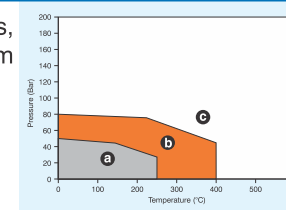
TECHNICAL DATA:

Max. Operating Pressure: 5 MPa / 50 Bar (725 psi)

Max. Short Term Service Temperature: 400°C / 752°F

Continuous Service Temperature: 250°C / 482°F

Operating Temperature for steam: 200°C / 392°F



Guidelines for application:

- Suitable subject to chemical compatibility.
- Suitable for short term temperature fluctuation or non critical application.
- For extreme service conditions, kindly consult Champion Technical Support.



CHAMPION STYLE AF139 STEAM

Champion Style AF139 is higher performance BS7531 Grade X Asbestos-Free (AF) Jointing sheet. It is comprised of compressed aramid fibres and bonded with a combination of functional fibres with a elastomer binder to create a matrix of stability for thermal and chemical medium service. It is available in Non-Metallic and also in Metallic option (with wire re-inforcement & anti-stick properties-which minimizes adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time). Suitable for medium industrial applications and hydrocarbons.

IDENTITY COLOUR: ORANGE or GRAPHITED BLACK with Anti-stick Coating

Media: Hyrdocarbons-Oils, Solvents, Steam, Gases, Glycols, Aqueous solutions. (Medium Service Conditions).

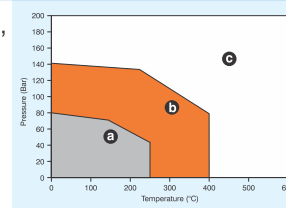
TECHNICAL DATA:

Max. Operating Pressure: 8 MPa / 80 Bar (1160 psi)

Max. Short Term Service Temperature: 400°C / 720°F

Continuous Service Temperature: 250°C / 450°F

Operating Temperature for steam: 250°C / 450°F



CHAMPION JOINTING STYLE AF154 HIGH PRESSURE

Champion Jointing Style AF154 is special purpose BS7531 Grade X Asbestos-Free (AF) Jointing sheet. It is blend of superior heat resisting compressed aramid fibres bonded with a combination of other functional fibres along with nitrile elastomeric binders. It is available in Non-Metallic and also anti-stick properties- which minimizes adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time). Suitable for use with soft cut gasket for extreme industrial applications.

IDENTITY COLOUR: YELLOW

Media: Suitable for use with Solvents, Gases, Steam, Dilute Acids and alkalies. (High Service Conditions).

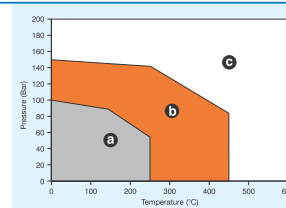
TECHNICAL DATA:

Max. Operating Pressure: 15 MPa / 150 Bar (2175 psi)

Max. Short Term Service Temperature: 450°C / 810°F

Continuous Service Temperature: 300°C / 572°F

Operating Temperature for steam: 280°C / 536°F



CHAMPION JOINTING STYLE AF154 METALLIC

Champion Jointing Style AF154 Metallic is special purpose BS7531 Grade X Asbestos-Free (AF) Jointing sheet. It is blend of superior heat resisting compressed aramid fibres bonded with a combination of other functional fibres along with nitrile elastomeric binders with wire re-inforcement to create matrix of stability & anti-stick properties which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time. Suitable for use with High Pressure Steam compatibility.

IDENTITY COLOUR: GRAPHITED BLACK with Anti-stick Coating

Media: Suitable for use with Oils, Solvents, Gases, Steam, Dilute Acids and alkalies. (High service conditions).

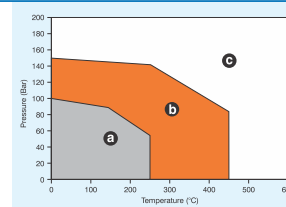
TECHNICAL DATA:

Max. Operating Pressure: 15 MPa / 150 Bar (2175 psi)

Max. Short Term Service Temperature: 450°C / 810°F

Continuous Service Temperature: 300°C / 572°F

Operating Temperature for steam: 280°C / 536°F



Guidelines for application:

- Suitable subject to chemical compatibility.
- Suitable for short term temperature fluctuation or non critical application.
- For extreme service conditions, kindly consult Champion Technical Support.



CHAMPION STYLE AF159 OIL

Champion Jointing Style AF159 is special purpose BS7531 Grade X Asbestos-Free (AF) Jointing sheet. It is blend of superior heat resisting compressed aramid fibres bonded with a combination of functional fibres along with nitrile elastomeric binders (NBR). It is available in Non-Metallic and also in Metallic option (with wire re-inforcement & anti-stick properties-which minimizes adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time).

IDENTITY COLOUR: BLACK or GRAPHITED BLACK with Anti-stick Coating

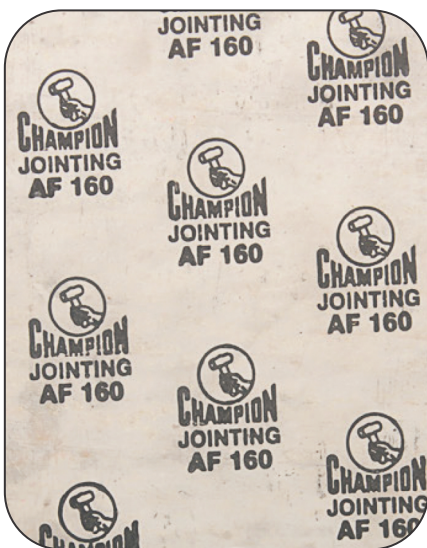
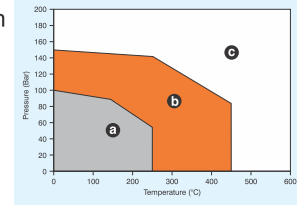
Media: Oils, fuels and hydrocarbon compounds. (High Service Conditions).

TECHNICAL DATA:

Max. Operating Pressure: 15 MPa / 150 Bar (2175 psi)

Max. Short Term Service Temperature: 450°C / 810°F

Continuous Service Temperature: 300°C / 572°F



CHAMPION JOINTING STYLE AF160 ACID

Champion Jointing Style AF160 Acid is special purpose BS7531 Grade X Asbestos-Free (AF) Jointing sheet. It is blend of superior heat resisting compressed aramid fibres bonded with a combination of functional fibres along with nitrile elastomeric binders (NBR). Champion AF-160 Sheets are available only in Non-Metallic. Suitable for use in all acid and chemical resistant applications.

IDENTITY COLOUR: OFF-WHITE

Media: Organic, concentrated acids, alkali, chemicals to withstand corrosive media applications.

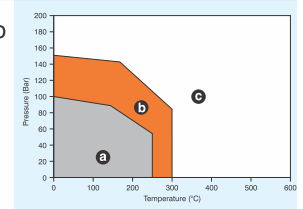
TECHNICAL DATA:

Max. Operating Pressure: 10 MPa / 100 Bar (1045 psi)

Max. Short Term Service Temperature: 300°C / 572°F

Continuous Service Temperature: 250°C / 482°F

Max. Operating Temperature for steam: 210°C / 410°F



CHAMPION JOINTING STYLE AF190 PERFORMANCE

Champion Jointing Style AF190 is a Premium grade high temperature, pressure resistance compressed Asbestos-Free (AF) Universal Jointing sheet consisting of premium grade of synthetic Aramid fibers, heat dissipating graphite, carbon bonded with HNBR elastomers, additives and specialty chemicals.

IDENTITY COLOUR: DARK GREY / BLACK

Media: An Performance grade has excellent resistance to high temperature/steam applications, oils, hydro carbons, solvents, fuels, refrigerants, gas, acids.

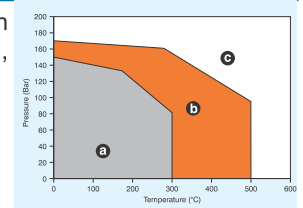
TECHNICAL DATA:

Max. Operating Pressure : 15 MPa / 150 Bar (2175 psi)

Max. Short Term Service Temperature : 500°C / 932°F

Continuous Service Temperature : 300°C / 572°F

Operating Temperature for steam : 280°C / 536°F



Guidelines for application:

- Suitable subject to chemical compatibility.
- Suitable for short term temperature fluctuation or non critical application.
- For extreme service conditions, kindly consult Champion Technical Support.



CHAMPION JOINTING STYLE AF190 METALLIC

DESCRIPTION: Champion Jointing Style AF190 Metallic is a Premium grade high temperature, pressure resistance compressed Asbestos-Free (AF) Universal Jointing sheet consisting of premium grade of synthetic Aramid fibers, heat dissipating graphite, carbon bonded with HNBR elastomers, additives and specialty chemicals with wire re-inforcement to create matrix of stability & anti-stick properties which minimises adhesion of the gasket to flange surfaces even at elevated temperatures, resulting in reduced removal time.

IDENTITY COLOUR: GRAPHITED BLACK COLOR

Media: An Performance grade has excellent resistance to high temperature/steam applications, oils, hydro carbons, solvents, fuels, refrigerants, gas, acids.

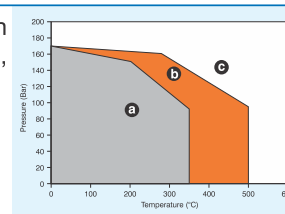
TECHNICAL DATA:

Max. Operating Pressure : 17 Mpa / 170 bars (2465 psi)

Max. Short Term Service Temperature : 500°C / 932°F

Continuous Service Temperature : 350°C / 662°F

Operating Temperature for steam : 300°C / 572°F



Guidelines for application:

- Suitable subject to chemical compatibility.
- Suitable for short term temperature fluctuation or non critical application.
- For extreme service conditions, kindly consult Champion Technical Support.

TECHNICAL DATA SHEET

GASKET SHEET	TENSILE STRENGTH	RESIDUAL STRESS	COMPRESSIBILITY	RECOVERY	IGNITION LOSS	CONTINUOUS SERVICE TEMPERATURE	RECOMMENDED MAX. PRESSURE
Champion Style AF110 Water	7 N/mm ²	≥ 22 Mpa	8-13%	≥45%	≤40%	250°C	35 bar
Champion Style AF120 GP	10 N/mm ²	≥ 22 Mpa	8-13%	≥45%	≤35%	250°C	50 bar
Champion Style AF120 Metallic	10 N/mm ²	≥ 22 Mpa	8-13%	≥45%	≤35%	250°C	50 bar
Champion Style AF139 Steam	11.5 N/mm ²	≥ 22 Mpa	8-13%	≥45%	≤35%	300°C	80 bar
Champion Style AF154 High Pressure	15 N/mm ²	≥ 25 Mpa	8-13%	≥50%	≤35%	300°C	100 bar
Champion Jointing Style AF154 Metallic	15 N/mm ²	> 25 Mpa	8-13%	≥50%	≤35%	300°C	100 bar
Champion Style AF159 Oil	15 N/mm ²	> 25 Mpa	8-13%	≥50%	≤35%	300°C	150 bars
Champion Jointing Style AF160 Acid	10 N/mm ²	> 25 Mpa	8-13%	≥50%	≤35%	300°C	100 bars
Champion Jointing Style AF190 Performance	15 N/mm ²	> 25 Mpa	8-13%	≥50%	≤35%	300°C	150 bars
Champion Jointing Style AF190 Metallic	17 N/mm ²	> 25 Mpa	8-13%	≥50%	≤35%	350°C	170 bars

Champion Metallic Jointing Sheets: When the operating temperature and pressure is critical, when the effective gasket area is small, we recommend Champion Metallic Wire Reinforced Gaskets for critical applications in boiler, power generation, steel plants, oil and gas refineries.

*Technical Notes: Information given in this brochure is based on general experience and is given in good faith. As the company's products are used for various application's and having no control over the application or use, the company excludes all warranties, expressed or implied as to their products or their fitness for any particular application. Any technical advice/suggestion is given for the customers assistance without liability on part of the company, whatsoever.

Gasket selection should be done as per the operating parameters, i.e. temperature, pressure, media and equipment. All gasket are recommended to be cut on a hydraulic press or on an automated laser cutting CNC machine. To ensure a leakage free gasket installation, the flange seat has to be clean, without any surface damage. It is not advisable to cut gaskets using a chisel/hammer.

Since 1959, Champion offers its valued customers, 100% guaranteed assurance for its products to ensure leak-proof sealing and insulation products subject to the above technical notes. Please be aware of spurious and duplicate products which may damage your plant and machinery; injure factory employees, workmen. Spurious products cause downtime, production loss and emergency shutdown.

Champion “Hammer in Hand” Brand Jointing Sheet and Gaskets are manufactured as per BS (British Standard)

Gasket Selection

Gaskets must maintain a leak proof seal for an acceptable period of time, against all of the operational forces involved and to achieve this, there are eight important properties which any good gasket should possess:

- The gasket should not be porous to the fluid being sealed.
- The gasket should compress into the imperfections on the flange to create initial seal on application of sealing force.
- The gasket should not show significant creep under the influence of load and temperature. Such flow will allow the bolts to relax, reduce gasket surface stress and cause leakage.
- The gasket should be capable of catering to slight distortion between the flanges.
- The gasket should withstand chemical attack from the media being handled.
- The gasket has to be easily dismantled after use.
- The gasket should be able to withstand effects of temperature and pressure of the confined media.
- The gasket should not cause corrosion of the flange faces.

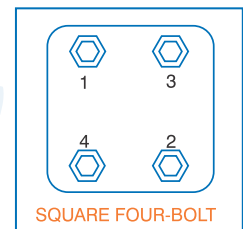
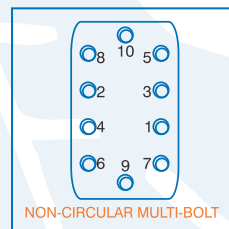
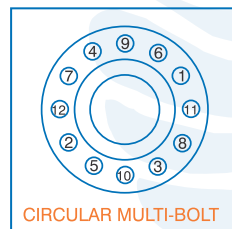
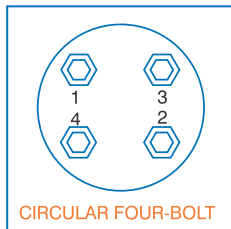
(Please visit our website: www.championseals.in for the questionnaire form to be filled and sent to us for our guidance on appropriate style selection for any new/existing applications.)

Champion “Hammer in Hand” Brand Jointing Sheet and Gaskets are manufactured on British and Italian calendering machinery to ensure the product specifications are manufactured to international standards.

Champion AF Jointing Sheets are manufactured in the following sheet sizes:

Available Sheet Sizes in mm (+/- 5%)	1600 mm x 1500 mm	1600 mm x 4500 mm
	1500 mm x 2000 mm	2000 mm x 6000 mm
Thickness (mm)	0.4/0.5 mm; 0.75/0.8 mm; 1.0 mm; 1.5 mm; 2.0 mm; 3.0 mm; 4.0 mm; 5.0 mm	

Bolting Installation Procedure



The sequence in which bolts are tightened has a substantial bearing upon the distribution of contact area stress. Improper bolting may cock the flange out of parallel. It is important for proper sealability that the flanges are clean and free from any serious defect.

To identify original Champion “Hammer in Hand” Brand Jointing Sheet and Gaskets; kindly look for company’s website (www.championseals.in) printed diagonally across every sheet. To verify if the product is original, please send us a photo of the gasket sheet, along with the product label on the sheet to the below contact co-ordinates.

CHAMPION SEALS INDIA PRIVATE LIMITED SEALANT & GASKET INDIA PRIVATE LIMITED

Champion House, 15 Parsi Panchayat Road, Andheri (East), Mumbai – 400069. INDIA

Product Inquiry (India) : sales@championseals.in

Product Inquiry (Exports): exports@championseals.in

General Inquiry : info@championseals.in

Customer Care Number : +91 98201 71162

Website : www.championseals.in

