



CHAMPION ASBESTOS GLAND PACKINGS

INTRODUCTION:

Champion  is a leader in industrial sealing technologies since 1959, manufacturing and supplying a comprehensive range of engineered flange gaskets and sealing solutions. This outstanding range of products and services make **Champion**  India's No.1 Gasket Sealing Brand.

Sr No	CHAMPION® Style	Material Specification	Temperature		Service Recommendation	Size
			Maximum	Minimum		mm ²
1	1000 (RD/SQ)	Champion White Dry Plaited (Round/Sq) Gland Packing	+350°C / +662°F	Asbestos dry plaited general steam and insulation packing for hot gases, oven, autoclaves etc. conforming to IS specification 4687 Grade I and DGS & D.	6-100	
	Heat Insulation		-100°C / -148°F			
2	1094	Champion PTFE Impregnated Gland Packing	+260°C / +500°F	High grade asbestos fibre yarn duplex braided packing impregnated with special PTFE suspensoid for severe caustic and other corrosive chemical, solvents, oils and petroleum byproducts and oxygen service. pH 2-12.	3-100	
	Solvents, Acid, Alkaes and Chemicals		-100°C / -148°F			
3	1100	Champion Graphited and Lubricated (Non Metallic) Gland Packing	+260°C / +500°F	Lubricated and graphited, general-purpose asbestos gland packing for medium pressure conditions conforming to IS Specn. 4687 Grade II and DGS & D Specifications.	6-100	
	Water		-100°C / -148°F			
4	1200	Champion Graphited & Lubricated Lead Wire Reinforced Metallic Gland Packing	+350°C / +662°F	Self lubricated white metal lead wire reinforced asbestos gland packing, specially suited for rotary shafts with peripheral speeds upto 1750 ft/min. Recommended for steam, hot water, weak acids and alkalis in low friction and greater mechanical durability applications.	6-100	
	Water, Steam, Weak Acids		-100°C / -148°F			
5	1300	Champion Graphited & Lubricated Brass Wire Reinforced Metallic Gland Packing	+500°C / +932°F	Self lubricated brass wire reinforced asbestos gland packing, specially suited for high speed rotary and reciprocating shafts even at higher temperature and pressure. Recommended for saturated and super heated steam, hot water, air, gases, oils, in steam expansion glands, rotary and reciprocating equipments.	6-100	
	Water, Steam & Oils		-100°C / -148°F			
6	1490	Champion Alkapack Gland Packing for Caustics	+300°C / +572°F	Special grade of asbestos duplex braided packing suitably lubricated and treated with graphite to withstand caustic liquors, including caustic potash, soda, lime, ammonia and sulphides. An ideal packing for paper mill applications. pH 4-12.	6-100	
	Caustic, Ammonia, Soda		-100°C / -148°F			
7	1800	Champion Lubricated Plaited Graphited Gland Packing (Non Metallic)	+490°C / +914°F	Premium non-metallic asbestos lubricated and graphited braided packing for high pressure saturated super heated steam conforming to IS Specn. 4687 Grade III and DGS & D Specifications. Most popular graphited packing for pumps in general industries. Superior to Style 1100.	6-100	
	Water, Super Heated Steam		-100°C / -148°F			
8	1850	Champion Lubricated Plaited, Non-Graphited (Non Metallic)	+490°C / +914°F	Premium non-metallic asbestos lubricated non graphited braided packing meant for stainless steel rods. High pressure saturated super heated steam conforming to IS specification 4687 Grade III and DGS & D.	6-100	
	Water, Super Heated Steam		-100°C / -148°F			
9	1852 (Belka)	Champion Belka-Lubricated & Graphited Packing	+490°C / +914°F	Non-metallic asbestos lubricated graphited braided packing meant for stainless steel rods. High pressure saturated super heated steam conforming to IS specification 4687 Grade III and DGS & D.	3-5	
	Water, Super heated Steam		-100°C / -148°F			

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10	1900 High Temperature Insulation	Champion Super grade Dry Packing for High Temp & High Pressure Service	+540°C/+1004°F	-100°C / -148°F	Premium white dry plaited asbestos U140 fibre yarn braided non-metallic packing used where severe high temperature conditions prevail. Best suited for expansion joints, door ovens, caulking of joints, exhaust pipe wrappings, ductings etc. Superior to style 1000.	6-100
11	143 Metaflex A Water & Oil	Champion Asbestos Rowing Packing Crimped Aluminium Foil	+560°C/+1040°F	-100°C / -148°F	Premium packing with aluminium foil, crimped with high grade lubricants, sealed in layers and folds built around special rovings. Used for high peripheral speeds (Shafts > 500 BHN) on rotary crude oil pumps, petroleum distillates, steam compressors, turbines, hot oil valves, brine, hydrocarbons etc.	3-100
12	600 A Steam Oil and Steam	Champion Asbestos Proofed Semi-metallic Packing	+280°C / +536°F	-100°C / -148°F	A special high pressure medium temperature packing with strips of white metal intermittent layers embedded. Recommended for steam expansion glands, marine engines, compressors, pumps, winches and hoists for ship building and sugar mills etc.	3-100
13	1910 (Special) Square Water, Steam, Weak Acids	Champion Graphited & Lubricated Non Metallic Gland Packing	+540°C/+1004°F	-100°C / -148°F	Special non-metallic closely braided high yarn content packing lubricated with special dry compounds. Specially recommended for high pressure super-heated steam services for valve glands, gauge glass fittings, turbines, boilers and similar applications. The highest performance grade of Non Metallic Graphited Packings.	3-100
14	1916 (SS Wire) Square Water, Steam & Oils	Champion Graphited & Lubricated (SS 316L Wire) Metallic Gland Packing	+815°C/+1499°F	-100°C / -148°F	Special metallic closely braided high yarn content packing suitably lubricated with special dry compounds and reinforced with SS 316L (low carbon <0.03%) wire. This is an ideal choice for high temperature valve application and is suitable for service with steam, butane and propane gases, oil vapour, furnace oil etc.	3-100
15	1960 (Nickel Alloy Wire) Square Super Heated Steam	Champion Graphited & Lubricated (Nickel Alloy) Metallic Gland Packing	+900°C/+1652°F	-100°C / -148°F	Special metallic closely braided high yarn content packing suitably lubricated with special dry compounds and reinforced with premium Nickel Alloy (min 35% Ni 20%Cr) wire. Recommended for valve stems in control valves at high pressures and temperatures. The highest performance grade of Metallic Graphited Packings.	3-100
16	12 Heat Insulation	Champion Lagging Rope	+350°C / +662°F	-100°C / -148°F	Specially developed high temperature sealing and caulking Lagging Rope for insulating pipework. The rope lagging exhibits consistent diameter, high tensile strength, low thermal conductivity and is suitable for temperatures upto 350°C along with good weathering properties.	12.5-51
17	CWT 154 / 354 Electrical High Temperature Insulation	Champion Webbing Tape (1.5, 3, 5, 6 mm Thickness)	+315°C / +599°F	-100°C / -148°F	Specially developed metallic and non metallic asbestos tapes for electrical cables, switch boxes, drying ovens, heaters, available in variable widths and thicknesses.	3-6 mm
18	150, 155, 132, 135, 136, 1331 (M) High Temperature Insulation	Champion Asbestos Cloth (1.5, 3, 5, 6 mm Thickness)	+315°C / +599°F	-100°C / -148°F	The premium asbestos yarn is used to make the asbestos cloth typically used for thermal insulation in power plants, boilers, pipelines, protective clothings. Sizes available upto 6mm thickness.	1.5-6

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19	Listing Tape	Champion Railway / Listing Tapes	+315°C / +599°F	-100°C / -148°F	Specially developed tape using premium grade yarn and proprietary process for insulation traction motor coils, electrical windings, textile drums.	25mm
	Electrical Insulation					
20	1054	Champion Special Yarn	+500°C / +932°F	-100°C / -148°F	Special grade of asbestos yarn used for specific high temperature insulation requirements, manufactured using premium grade fibres	3,6
	High Temperature Insulation					
21	1056	Champion Asbestos Twisted Yarn	+315°C / +599°F	-100°C / -148°F	The most popular universal yarn used as industry standard from twisting size 1.5mm upto 50mm diameter, typically used for dry heat, caulking between rough and irregular surfaces, Blast Furnace connections, Coke Ovens, Gas Generators, Making gloves / cloth and as wiping pad in galvanising steel wire industry.	1.5-6
	Heat Insulation					
22	1090	Champion Un-Polished Yarn	+300°C / +572°F	-100°C / -148°F	Unpolished Asbestos Yarn for various industrial / commercial applications	>0.5
	Electrical Applications					
23	1502	Champion Mantle Polished Yarn	+300°C / +572°F	-100°C / -148°F	Polished Abestos Yarn used as industry standard for uses in mantles in incandescent gas lamps	>0.5
	Electrical High Temperature Insulation					
24	1860	Champion Valve Twist Graphited Yarn	+325°C / +617°F	-100°C / -148°F	Valve Twist- for valve stems , small valve spindles, stuffing boxed and minature appartus in full steam, this yarn can be twisted to requisite sizes to be fitted in the gland	1.5-6
	High Temperature Super Heated Steam					
25	1700	Champion Moldable Fibrous Packing (Non-Metallic)	+300°C / +572°F	-100°C / -148°F	This is a non-metallic mouldable loose packing manufactured from high grade long asbestos fibres blended with special lubricant and graphited throughout. Suitable for superheated and high pressure steam, Gases and oils.	Spl
	High Temperature Steam					
26	1710	Champion Moldable Fibrous Packing (Metallic)	+400°C / +752°F	-100°C / -148°F	This is a semi-metallic fibrous packing manufactured from high grade long asbestos fibre with metal shreds of antifricition white metal blended in the composition with special lubricants and graphited throughout. Recommended for excessive high pressure and temperature. The packing has low frictional properties.	Spl
	High Pressure Temperature and Pressure					
27	1750SS	Champion Moldable Fibrous Packing (SS)	+500°C / +932°F	-100°C / -148°F	This is a mouldable loose fibrous asbestos packing blended with special lubricants. Recommended for duty on worn-out and mal-aligned stainless steel shafts. For high temperature steam, hot and cold water, air and oil service in valves and centrifugal pumps. For best results seal with a ring turn of Champion Style 1850 Braided Packing both at beginning and end to prevent extrusion.	Spl
	High Temperature Steam					



Valve & Pump Packing Installation Procedures

Assuring effective Sealing and maximum Safety

A guide to valve and/or pump packing installation

Effectively sealing a valve or pump is dependent upon the overall condition of the individual components.

These procedures provides guidance to maintenance operators, engineers and fitters to ensure a successful packing installation. It is intended to complement other plant-approved installation procedures. Most of the guidelines are common to both valves and pumps; however, manufacturers guidelines are noted as required.

Tools required

Specific tools are required for removal of the old packing and installation of the new packing, as well as tensioning of the fasteners. In addition, always use standard safety equipment and follow good safety practices. Acquire the following equipment prior to installation:

- Calibrated packing ring cutter
- Flashlight and Helmet
- Packing extractor and knife
- Steel ruler
- Calibrated torque spanner
- Lubricant for fasteners
- Safety goggles
- Vernier dial gauge and tools

Clean, examine, measure and record

- Loosen gland follower nuts
- Examine the shaft/stem
- Inspect old packing
- Remove all old packing
- Check stuffing box
- Replace defective component

Select packing

- Assure packing to match service conditions
- Calculate the number of rings needed and examine packing
- Ensure cleanliness of equipment and packing before proceeding

Prepare rings

Braided- Wind packing around properly sized mandrel.

Cut packing as per design i.e. square or diagonal, then cut one ring at a time using shaft for proper sizing.

Die formed/molded- Assure that rings are sized precisely to shaft and cut rings for installation as per design.

Install packing

- Install one ring and twist over shaft
- Stagger joints of rings $\leq 90^\circ$
- Check lantern ring, for positioning
- Ensure each ring is seated fully
- Draw gland up evenly to tighten
- Make sure shaft turns freely

Adjust packing (Valves)

Tighten gland nuts in multiple steps:

Step 1 – Torque gland bolts to approximately 30% of full torque.

Step 2 – Cycle the valve a number of times and apply full torque while valve is in closed stroke position.

Step 3 – Repeat Step 2 three or four times.

Adjust packing (Pumps)

- Gland nuts until finger-tight
- Reduce leakage by tightening slowly
- Start pump, tighten gland nuts
- Leak rate to stabilize over time

Retightening and replacement

It is advisable to check gland adjustment after a few hours of operation. Tighten as necessary if there is leakage.

Packing must be replaced when gland can not be adjusted further.



General Disclaimer: All information given is intended as/for general guidelines. Product oered is one of the many consumable items among various parts that constitute the equipment. In view of the various variable operating conditions/equipment condition/usability beyond the scope of our purview, any form of guarantee/warranty on the performance cannot be given nor implied. The purchaser/user is expected to understand the products application/suitability well before use. We hereby clearly and amply disclaim the liability for incidental/sequential damages arising out of equipment damage/injury or any other complications/claim rising out of the use/utility of products.

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