

SUPERSEAL

ASBESTOS-NON ASBESTOS
GLAND PACKING / INSULATION
PRODUCTS





DNV BUSINESS ASSURANCE MANAGEMENT SYSTEM CERTIFICATE

Certificate No 42287-2008-AQ-IND-RvA Rev 03

This is certify that

SUPER WAUDITE JOINTING PVT. LTD.

at

G/1, Shyamsunder Apartment, 6, Laxmi Society, Nr. Sushrusha Hospital, Narangpura, Ahmedabad-380006, India.

works:

6/7/8, Ajanta Industrial Estate, Behind Sarika Paints, Vasna-iyava-382 210, Taluka: Sanand, District: Ahmedabad, Gujarat, India.

has been found to conform to the Quality Management System Standard

ISO 9001: 2008

This certificate is valid for the following scope.

MANUFACTURE AND SUPPLY OF ASBESTOS & NON-ASBESTOS BASED JOINTINGS, INSULATION, SEALING AND PACKING PRODUCTS

Initial Certification date 28 October 2002

This Certification is valid until 27 October 2017

The audit has been performed under the supervision of;

Soumya Chatterjee

ELIMAN SYS.

RvA C 024

Place and date of issue Chennai, 24 October 2014

for the Accredited Unit DET NORSKE VERITAS CERTIFICATION B V THE NETHERLANDS

Doman

Sivadasan Madiyath Management Representative

Lake of fulfilment of conditions as set out in the certification Agreement & the annexure to this certificate may render this Certificate invalid.

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SUPER WAUDITE JOINTING PVT. LTD.



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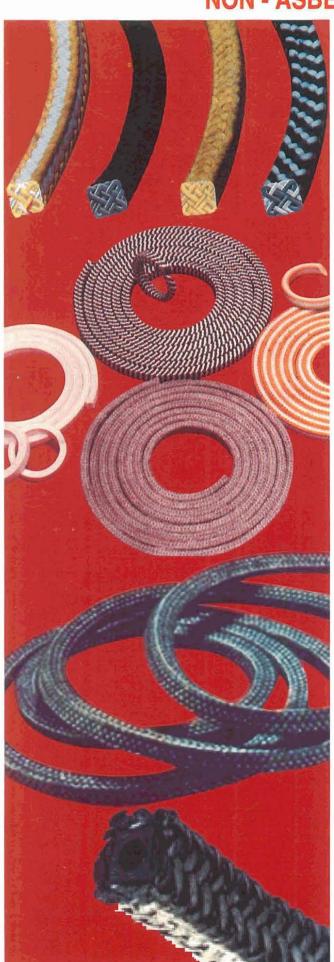
"SUPERSEAC brings you international quality and technology of purest, safest and the best Asbestos packing, sealing and textile products. "SUPERSEAL" meets the demand of entire range required for Steel, Aluminium, Power, Fertiliser, Refinery, Glass, Chemical, Sugar Mill, Cement Plant, Railways, Marine, Ordnance Factory etc. Presently hi-tech packing are in vogue to meet the development in all areas of the Industries. To meet the demand "SUPERSEAL" have imported "Aqua Dispersion Process" technology from World renowned British Belting & Asbestos Group of England. Asbestos products manufactured in "Aqua Dispersion Process" is not only the purest but also Non-Health Hazardous. Moreover "Aqua Dispersion Process" also makes the product technically superior providing the lowest 'Loss on Ignition', the most important factor in Asbestos product for best possible performance and longer life. "SUPERSEAL" Asbestos products are manufactured as per the latest IS Specification. No.: 468711995/ASTM Grade AAA, AAAA

ASBESTOS PRODUCTS

Style No.	Temerature	(Field of Application) STEAM/SUPER HEATED & SATURATED STEAM APPLICATION Nomenclature/Service
SS-1992	450°C	White Dry Asbestos cover on cover plaited packing recommended for insulation and sealing against Steam, Hot Gas, Coke Oven Door, Boiler Door 8 Peep Hole, Auto Claves etc. conbrming to IS Specification No.468711995 ASTM Grade AAA/AAAA
SS-1993	325°C	Lubricated and Graphited cover on cover Plaited Asbestos packing recommended for general purpose use in valve gland, pump stuffing box for low & medium temperature and pressure condition, conforming to IS-4687/1995 Gr. II.
SS-1994	350℃	Lubricated and Graphited Asbestos packing reinforced with White Metal Wire. This mechanically strong end low friction Asbestos pecking is recommended for static and rotary motion against steam, hot water, weak acids and alkalis.
SS-1995 (M)	500°C	Special Self Lubricated Graphited Asbestos packing reinforced with Brass Wire, recommended for High Speed Centrifugal & Reciprocating motion at elevated temperature and pressure. Reinforcement improves its mechanical strength and the special lubricant improves antifrictional properties to provide longer life of packing. This is suitable for super heated and saturated steam, hot water, air, gas, oil etc.
SS-1995	490°C	Special Non-Metallic Self Jubricated and Graphited Asbestos Packing recommended for valve gland handling saturated steam and pump stuffing box handling hot water, air, gas, oil at elevated pressure, conforming to IS-4687/1995 Gr. III.
SS-191	325°C	Lubricated and Graphited Asbestos twisted packing recommended for valve stem of smaller size valve and pump & miniature apparatus in steam application . Several packing strand can be twisted together to suit the size of valve gland/pump stuffing box .
SS-1929	680°C	A popular packing developed specially, manufactured out of Crysotile Asbestos Yarn reinforced with Inconel Wire lubricated with Graphite Incorporating Sacrificial metal Corrosion inhibitor to prevent galvanic corrosion on Stainless Steel Spindle. This packing does Super Sealing job at extremely high temperature and high pressure application and are extremely suitable for Main Steam Line Valves. This packing has a tremendous track record in leakage free performance in frequently operated Control Valves. Unless otherwise specified, this packing is manufactured as per BHEL Spcn No, VL: STDC: 021.
SS-1939	815°C	A specially developed high grade Asbestos packing reinforced with Special Alloy Wire/Stainless Steel Wire lubricated with graphite incorporating Active Corrosion inhibitor with controlled Chloride content upto 200ppm (max.) This packing is highly recommended for valve application against steam, gas, oil etc. Unless otherwise specified, it is manufactured as per BHEL Specification No.VL:STDC:004.
SS-1949		Self iubricated Special Asbestos packing reinforced with Copper wire end incorporating Special Lubricants to withstand high pressure and temperature for Steam valve / Blast Furnace door etc. If the valve spindle is of Stainless Steel an additive is used to prevent galvanic corrosion.

Style No.	Temperature	(Field of Application) ACID, ALKALI, OIL, SOLVENT
SS-1998	(-150°C to +300°C)	Crysotile Asbestos fibre yam packing impregnated with special PTFE Dispersion recommende forweekacids and alkalis. caustic. solvents, oil, corrosive chemical etc. within Ph. range 2-12.
SS-1996	425°C	High grade Crysotile Asbestos packing each strand of which is impregnated with Oil resistir Synthetic Elastomer and treated with anti-frictional Graphite Flake. The packing is als impregnated with special grade of 'Break in Lubricant' recommended for hot and cold O solvent, Aromatic Hydrocarbon, Petroleum Distilatesetc.
SS-1977 SS-1966	500°C 350°C	High grade Asbestos packing reinforced with Brass Wire treated with Oil resisting Syntherelastomer incorporating special grade lubricant. The incorporation of Brass Wire improve mechanical strength of the packing and the special lubricants Improve anti-frictional propertie. This packing is highly recommended for Refinery and Petrochemical services against high temperature and high pressure application. Crysotile Asbestos packing treated with suitable lubricant and high grade Graphite Flake.
20 1000	0000	MÓS2, highly recommended against Caustic Liquor including Caustic Potas, Soda, Soda As Lime, Ammonia. Sulphide, Sulphate etc. This packing is also suitable for handling paper M Chemicals like Hypo, Black Liquoretc. within Ph. Range 2-12
Style No.	Temperature	(Field of Application) THERMAL INSULATION
SS-190	415℃	Non-MetallicWhite Asbestos Yarn recommendedfor use between Roughand Irregula
	450°C	Surface, Blast Furnace Connection, Coke Oven, Gas Generator etc. manufactured wet dispension process having 95-99% Purity to ASTM Grade: AAA.
SS-1997	415°C	Asbestos Fibre filled Rope Lagging. This Rope is of low density fluffy Asbestos Fib Poper encapsulated in fish net braided cover, recommended for insultion of Steam Pip Line, Exhaust Pipe in Thermal Power Station, Steam Generation Plant & Steel Casting
	450°C	Plain Weave non-Metallic Asbestos cloth of lowest thickness (0.8mm thick Recommended for special purpose use.
SS-19992	415°C 450°C	White Asbestos Special purpose Non-Metallic Woven Cloth of lower thickness (1.5 1.6 mm). This Cloth is specifically used for making Aprons, Ankle Guard, hand Glove
SS-19991	415℃	and also insulation of Small Bore Pipe Line.
	450°C	Non-Metallic Asbestos Closely Woven Cloth (in Plain Weave or TWILL Weave) used for thermal insulation in Power Plant, Boiler Mattresses, Pipe Line protective clothing an
SS-19990	500°C	smootheringFires. White Asbestos Closely Woven Cloth reinforced with Brass Wire/S.S Wire used for high
SS-19990	500°C	Temperature Thermal Insulation. Asbestos Cloth in Plain or TWILL Weave proofed with Rubber and are used for Range
(M) SS-19996	55Ō°C 215°C	Joint, Sealing Boiler Hand Hole and Man Hole, Covers of Tanks and Pressure Vesse and application against Air, Steam and Water. This cloth is also available with bras wire reinforcementand is used where heavy load is to be sealed.
SS-19929	450°C	Low Density Compressed Asbestos Cloth manufactured in special hi-tech proces extremely light weight of this cloth makes it handy and easy to use. This cloth can be used for making special purpose Apron, Hand Glove, Ankle Guard etc used in Ste Melting Shop, Blast Furnace, Aluminium Pot Line and foundry. Morewer this is high thermal Insulating and hence can be used as an Insulating Material specifically apparatus 1machinery where weight is a factor & where tensile strength and rough us is concerned , insertion of Metallic wire Mesh is provided in the cloth for ultimate performance.
Style No.	Temperature	ELECTRICAL INSULATION
		LLECTRICAL INSULATION
SS-19997	450°C	Asbestos Webbing Tapes, Metallic and Non-Metallic for Insulation of Small Pipes door frames of wens etc.
	315°C	Asbestos Listing Tape for Insulation of Traction Coils and in Electrical Winding.
Style No.	Temperature	HAND GLOVES
SS-19	350°C 450°C	Asbestos hand gloves manufactured from wet dispersion process cloth, 95-99% Puri ASTM Grade /AAA. Also available ISI/LOI Grade.

NON - ASBESTOS PRODUCTS



SUPERSEAL Style No. 900

A unique interbraided packing manufactured from pure graphite fibre with excellent heat dissipating properties and chemical resistance.

Service Media: Strong acids and alkalies, solvents, fuel and lube oils, super heated and saturated steam, bitumen, SO₂ etc.

Working Condition: Temp. 850°C, Pressure 400 KCS, PH range 0 to 14.

SUPERSEAL Style No. 901

Pure PTFE fibre interlock braided packing without having any additives.

Service Media: Food stuff, oxygen services, ammonia, carbomate

solution, strong/weak acid and alkali etc.

Working Condition: Temp. -200°C to + 260°C, Pressure 500 KCS, PH range 0 to 14.

SUPERSEAL Style No. 902

Pure PTFE interlock braided packing incorporating break in lubricant having high cross sectional density.

Service Media: Corrosive gases, acids, ammonia, caustics, solvent etc. Working Condition: Temp. -200°C to +260°C, pressure 500, KCS PH range 0 to 14.

SUPERSEAL Style No. 903

Pure PTFE filament interlock braided packing incorporting antifrictional inert lubricant.

Service Media: Acids and alkali, oils and any corrosive chemicals except flourine and molten alkali metal.

Working Condition: Temp. -200°C to +250°C, pressure 200 KCS, PH range 0 to 14.

SUPERSEAL Style No. 904

Interlock braided Aramid/KEVLAR fibre braided packing incorporating break in lubricant and special flouropolymer.

Service Media: Crystalline chemical slurries, ash slurry, any abrasive media, oil wood pulp, brines, organic solvents, hydrocarbon, sewage and hot water, coal and iron dust etc.

Working Condition: Temp. -200° C to $+300^{\circ}$ C, pressure 500 KCS, PH range 1 to 13.

SUPERSEAL Style No. 905

Pure carbon filament interlock braided packing firmly entrapping fine graphite flake as blocking agent to stop leakage.

Service Media: Acids. oils, solvents, superheated steam etc.

Working Condition: Temp. 550°C, pressure 180 KCS, PH range 0 to 14.

SUPERSEAL Style No. 906

Cross Braided combination packing manufactured from pure PTFE fibre and pure graphite fibre.

Service Media: Corrosive and non corrosive gases, acids, oils, alkali solutions, oleum etc.

Working Condition: Temp. 450°C, pressure 450 KCS, PH range 0 to 14

SUPERSEAL Style No. 907

PTFE internately bonded with graphite packing in interlock braid.

Service Media: Caustics, acids, dyes and chemicals etc.

Working Condition: Temp. -200°C to +250°C, pressure 100 KCS, PH range 0 to 14.

SUPERSEAL Style No. 908

Interlock braided PTFE graphite solid yarn dense packing manufactured in single molecular structure.

Service Media: Mercury, acids and alkali, dyes and chemicals, oil and solvent, white and black liquor bitumen, boiler feed water, hydrocarbon, hypo etc.

Working Condition: Temp. -200°C to +300°C, pressure 180 KCS, PH range 0 to 14.

SUPERSEAL Style No. 909

Flexible pure graphite compressed and die-moulded preformed gland packing ring in endless form/two halves in oblique cut having 99% to 99.8% carbon.

Service Media: Saturated and superheated steam, oil, solvent, hydrocarbon etc.

Working Condition: Temp. -250°C to +600°C (+3000°C in non oxydising media), Pressure 300 KCS, PH range 0 to 14.



SUPERSEAL Style No. 991

Cross braided packing manufactured from combination of Aramid/KEVLAR fibre and graphiled PTFE

Service Media: Mercury, alkaline solution, hot water, MILED abrasive media, critical chemical compound, greenliquoretc.

Working Condition: Temp.-200°C to +300°C, pressure 250, KCSPH range 1 to 13.

SUPERSEALStyle No.992

Perfect combination inter braided packing having graphited PTFE varn as its base and aramid/KEVLARyarnat theedges.

Service Media: Blackandgreen liquor, sewage water, oil, weakacidandalkali etc.

Working Condition: Temp.-200°C to +300°C, pressure 250 KCS, PH range 1 to 13.



Interlock braided packing having pure PTFE fibre at the face and aramid/KEVLAR fibre at the

Service Media: Carbomate solution, ammonia and ammonium compound, trisodium phosphate, DMT and host of critical chemical sused in petrochemical industries.

Working Condition: Temp.-200°C to +260°C, pressure 500 KCS, PH range 1 to 13.

SUPERSEAL Style No. 994



Working Condition: Temp. -250°C to + 600°C (Steam) 450°C (Oxidising Media) 3300°C (Non-OxidisingMedia) pressure300 KCS PH range Oto 14.

Superseal packings are availabe in rope form as well as in preformed ring in oblique cut.



MARINE, WATER, HYDRAULIC APPLICATION

SUPERSEAL Style No. SS 1922

Specially developed Non-Graphited Tough Vegetable Fibre Yam braided packing lubricated with special dry lubricants **suitable** for Marine **application**. **This** packing **is** highly antifrictional and resistant to mt hence recommended for Sea water, River water, Fresh water application. This is also extremely suitable for Wheel Shaft, Rudder Post and Stern Gland application. Temp. Range-130°C

SUPERSEAL Style No. SS 1924

A tough Vegetable Fibre Yarn braided Gland Packing incorporated with special Fluoro-Polymer, most reliable packing for Shipping, particularly for Stern Tube and Rudder Post. This is highly recommended packing for Sea Water application too. Temp. Range - 150°C

This braided packing is manufactured from tough and strong Vegetable Fibre Yam Impregnated with Special lubricant Incorporating anti-frictional fine Graphite Flake recommended for Fresh and salt water, Pen-Stock of Hydel Power Station and heavy duty Hydraulic application. Temp. Range-130℃

SUPERSEAL Style No. SS 1976

A fine natural Soft Fibre Yarn braidedpacking thoroughly impregnated with high grade Fluom-Polymer Lubricant specially developed for Centrifugal Pumps handling Dimineralised water. Cooling water and Condensate. Temp. Range - 130°C

SUPERSEAL Style No. SS 1974

A fine soft Vegetable Fibre Yarn Self-Lubricatedbraided packing specially impregnated with Graphite Incorporating 'Break in Lubricant' recommended for Pumps and Valves handling Dimineralised water, Cooling water. Condensate and also for Hydraulic application. Temp. Range - 150%

SUPERSEAL Style No. SS 1931

A special soft Vegetable Fibre Yam braided packing Impregnated with dry lubricant and Graphite specially developed for Reciprocating/Rotary Pump, Valve and Compressor. This Natural Fibre of the packing has got inherent tendency to absorb Fluids in operation and hence maintains smooth and soft relation between the packing and the parent equipment which ultimately prevents shaft and sleeve erosion. Temp. Range-130°C







SUPERSEAL STYLE - 965

CERAMIC FIBER YARN / PRODUCTS

"SUPERSEAC'Ceramic Fiber Yarns are manufactured from Refractory Oxides processed from molten state into fiber form. Depending on the uses. reinforcement (not twisted) of E-Glass Filament or Stainless wire or Nichrome Steel Wire is done at the time of spinning from Silber Stage.

"SUPERSEAL" Ceramic Yam is the basic raw material for the entire range of "SUPERSEAL" Ceramic Pmducts e.g. Twisted Packing, Braided Packing, Woven Cloth, Woven Tape etc.

"SUPERSEAL" Ceramic Products are basically used in high temperature Thermalinsulation Electricalinsulation and sealing corrosive Non corrosive Gases, Superheated and Saturated Steam, High temperature Sealing and a host of other application.

"SUPERSEAC Ceramic Fiber Yams are manufactured in Micro Fusion Process which is totally different from conventional manufacturing process. During manufacture of Ceramic Yam in Micro Fusion Process the **small** Fiber II Dusts of Alumina Silicate could be concealed to prevent Respiration II Itching problem during the uses of the Ceramic Fiber Products. **"SUPERSEAL"** Ceramic Products are not only Non-Toxic and Environment friendly but also technically superior to the ceramic Products manufactured in conventional process.

ROPES

"SUPERSEAL" Ceramic Ropes are available in Twisted Type and also in Braided type Multiple "SUPERSEAL" Ceramic Yarns are twisted togeher to achieve diameter of rope or multiple "SUPERSEAL" Ceramic Yarns are braided in conventional style or in core on cover style to achieve requireddlmension.

Normally twisted "SUPERSEAL" Ceramic ropes are used to seal uneven surface where he twisted ropes can even be further twisted to form smaller diameter to match the surface. "SUPERSEAL" Ceramic Twisted ropes are also extremely suitable to use as lagging rope for small bore pipe lines as well as for high bore pipe lines and also in exhaust manifold.

"SUPERSEAC' Braided ropes are having higher density than its Twisted type and are suitable for high temperature Sealing and Insulation "SUPERSEAL" Ceramic Ropes can effectively be used upto working temperature 1260° (Max).

CLOTH / TAPE

"SUPERSEAL" Ceramic Cloth / Tape is closely woven in conventional weave and also in Twill Weave. This Cloth / Tape is manufactured with E-Glass Filamentor Stainless Steal Wire or Nichrome Steel Wire reinforcement depending on specific requirement.

"SUPERSEAL" Ceramk Cloths I Tapes are generally used for high temperature insulation purpose and sometimes are used as Sealing Gasket also between the flanges "SUPERSEAL" Ceramic Cloth/Tape is Thermal as well as Electrical non conductof. Hence can be used for both Thermal and Electrical insulation. "SUPERSEAL" Ceramic Cloth/Tape can effectively be used upto working temperature 1260° (Max).

DETAILED TYPICAL APPLICATION OF "SUPERSEAL" CERAMIC CLOTH / TAPE

Boiler Mattress

- FlameProtection Screen
- ExpansionJoint

- Furnace Curtains
- Personal Shield
- Flange Gasket

- Wielding Curtain5
- Inspection Door Seal
- PipeInsulation

AVAILABILITY OF ROPE & CLOTH

Rope: 3mm Dia or Sq. to 50mm Dia or Sq. in cross Section and 25 Mtr Length

Cloth: Thikness: 2mm to 6mm Width: 1000mm Length: 20 Mtr.

AVAILABILITY OF TAPE

Thikness: 2mm to 6mm Width: 25mm, 40mm, 50mm, 80mm & 100mm Length: 25 Mtr.

Note: Dimensions other than specifie dabove are also available against specific requirement.

INDUSTRY WISE DETAILED APPLICATION OF "SUPERSEAL" CERAMIC ROPES

THERMAL POWER PLANT

- Boiler Door Sealing
- Boiler Peephole Packing
- Inspection Sealing
- Insulation of exhaust Steam Pipe

TRON AND STEEL PLANT / ALUMINUM

- Furnace Door Sealing
- Coke oven Extension Pipe Lagging
- Hot Blast Valve Packing
- Con Cast Dummy Bar Sealing

- Coke oven Door Sealing
- Hot Top Seal
- Different insulation in Carten Plant/Cast House.

CEMENT INDUSTRY

- Insulation of Pipe and Exhaust system.
- Boiler Door Selling

Door Jam

GLASS AND CERAMIC INDUSTRIES

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SUPERSEAL STYLE - 999

EXPANDED PURE GRAPHITE BRAIDED VALVE GLAND PACKING

SUPERSEAL. Style No. 999 is an expanded graphite braided gland packing reinforced with Inconnel wire/stainless steel wire. The parity of graphite is 99.546 to 99.9%. The packing is treated with antifrictional graphite lubricant to accommodate self adjustment on tightening of the gland. This lubricant also prevents seepage/leakage through the branding. Further sacrificial metal corrosion inhibitor also is incorporated to prevent galvanic corrosion of thesleeves.

SUPERSEAL - Style No. 999 enjoys the advantages of a braided padting having flexibility resiliency and also have all the characteristics of flexible pure graphite i.e. the packing does not contain oil, grease or binder of any kindor any other contamination. This packing dissipates heat properly as it is highly thermal conductor leading to its longer leakage free life. The performance of this packing is extremely well even under extreme condition and can resist heavy doses of nuclear radiation. The packing has very low coefficient of friction against steel (0.08 to 0.1) and is non-abrasive in nature. This packing can resist all most all Non-oxidising Fluids and gases and provided iongerleakage free life reducing maintenance cost.

SUPERSEAL-StyleNo. 999 can be used as an excellent Backup Ring and anti Extrusion Ring. While SUPERSEAL - Style No. 999 is used as top and bottom Ring in combination with "SUPERSEAL" 909 (Pre Compressed Flexible Pure Graphite Ring) as intermediate Rings it performs extremely well in any severe working condition.

SUITABLEFOR

SUPER HEATED AND SATURATED STEAM, NON OXIDIZING LIQUIDS & GASES,

HYDRO-CARBONS, DYES & CHEMICALS

SERVICECONDITION

Temperature

(-) **240°C** to 650°C (Steam)

450°C (OxidizingMedia)

3300°C (Non-Oxidizing Media)

Pressure

450 kg/cm²

Ph. Range

0 to 14

APPLICATION

Valve Gland

PRECAUTION

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Not recommended against strong Oxidising Liquid Aqua Regia, Oleum, Fumlng Nitric