THERMAL INSULATION & SEALING PRODUCTS

MANDELIA INSULATIONS

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MANAGEMENT SYSTEM CERTIFICATION
ROHS

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DUBAI ACCREDITATION CENTER

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT
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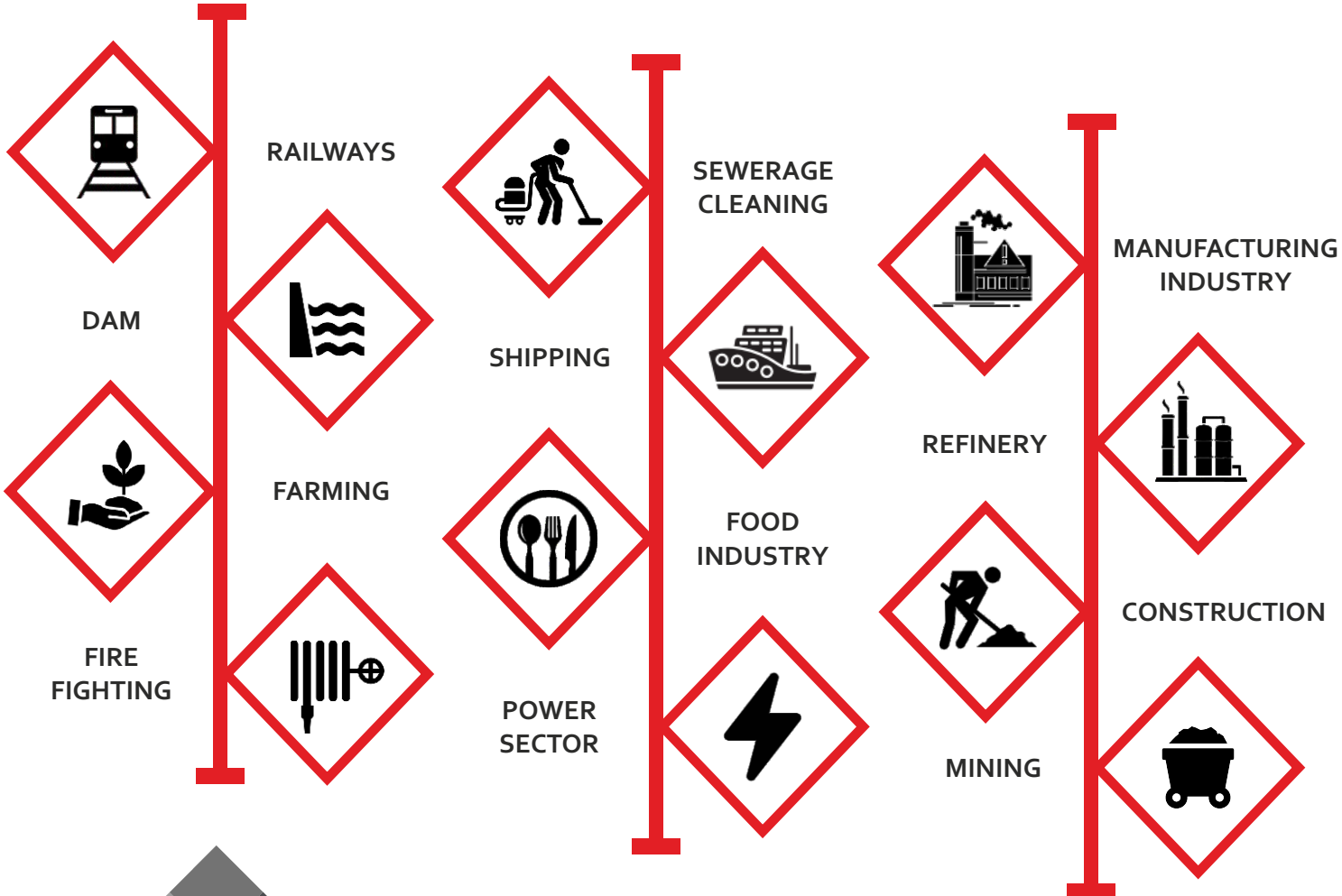
COMPANY OVERVIEW

Mandelia Insulation & Transmission Co. is a well-established organization that is known for manufacturing top quality thermal insulation & sealing using different fibers & yarns including Pure Graphite, Expanded Graphite, PTFE, Carbon, Aramid, Novoloid, Acrylic, Ramie, Flax, Glass Fiber, Ceramic, Silica etc. Non Asbestos braided packings made by MITC exhibits excellent technological advantages in terms of higher temperature & pressure resistance with a broad range of chemicals, acids, alkalies and other fluids and offer reliable sealing solutions. Our expansion into new realms of sealing & insulation field is attributed to our willingness to foray into new & hitherto unexplored areas of these subjects.

We are an ISO 9001:2015 certified company providing "zero defect products". Our team of assiduous professionals provides us enough strength to face the tough challenges of the competitive industry. We are backed by production engineers, quality controllers, and administration in charge, skilled workers, sales manager, marketing executives and many more competent professionals. Owing to the collective and untiring efforts of our professionals, we are able to reduce the time required to achieve organizational goals.

SERVING DIVERSE INDUSTRY NEEDS



Asbestos Cloth and Tape

PRODUCT DESCRIPTION : MAP Brand Asbestos Cloth & Tape are weaved from superior grade long "chrysotile" asbestos fibres. These are widely used for insulation purposes in various industries. It is also available in braidings with wires, such as copper or steel, polyester fiber. This construction strengthens its ability to withstand harsh working environments.

APPLICATION	As asbestos has good resistance to fire, heat, chemical and electrical damage, asbestos tape is often applied as conveying tape and is widely used in industry, metallurgy where needs heat-resistant materials. Asbestos Fabrics are used for boilers, pipelines and other equipment of metallurgy, chemical factories, power plants, buildings, ships, vehicles, and so on.
THICKNESS	1.5mm, 3mm and 5mm
WIDTH	1000mm (For Asbestos Cloth) & 25mm to 150mm (For Asbestos Tape)
PACKING	50 Kg Roll (For Asbestos Cloth) & 5/10 Kg Roll (For Asbestos Tape)
TEMPERATURE	Maximum - 450° C & Continuous - 350° C
COLOR	White

Asbestos Rope

PRODUCT DESCRIPTION : Braided from high tenacity Asbestos Fiber yarns, MAP Brand Asbestos Rope is available in a round as well as a square cross-section. Moreover, it is available with metal wire inserts as per requirement.

APPLICATION	For thermal insulation of pipelines, particularly when there is a danger of damage by abrasion In very confined spaces and additional protective cladding is not used. These asbestos rope are widely used in coke oven doors, between the fire bricks and steel frame-work in steel plants as well as in boiler houses. These asbestos ropes satisfy the need for a resilient yet tough material to accommodate differences in thermal expansion and effect an efficient seal against leakage of gases.
SIZE	6mm to 100mm
SHAPES	Round, Square & Rectangular.
PACKING	5 Kg per coil.
TEMPERATURE	Maximum - 450° C & Continuous - 350° C
COLOR	White

Ceramic Fiber Rope (MI-3000)

PRODUCT DESCRIPTION : Ceramic Fiber Braided Rope manufactured from superior quality Ceramic Fibre yarn, braided "cover on cover" or "cover on core" to form a solid packing. The Ceramic Yarn used in the manufacturing of this rope comprises of high temperature resistant inorganic refractory oxides of mainly 'alumina' & 'silica'. The ceramic Rope shows excellent thermal insulation properties & low "Loss on Ignition" thus making it suitable for caulking & general thermal insulation application. The Ceramic Yarn is reinforced with a carrier yarn of ASTM grade E-Glass Filament for added tensile strength.

Also Available :

Style MI-3000G - Ceramic Fiber Braided Rope Impregnated with Special Graphite for better heat dissipation.

Style MI-3000V - Ceramic Fiber Braided Rope Impregnated with a, high temperature resistant, Mineral Emulsion that acts as n excellent binder & is flame retardant, thus increasing the thermal & flame resistance capability of the rope.

Style MI-3400 - Ceramic Fiber Braided Rope Impregnated with PTFE dispersion for low pressure dynamic applications.

Style MI-3000S - Ceramic Fiber Braided Rope Impregnated with Stainless Steel Wire, as carrier, foe better resistance to temperature & pressure.

Style MI-3000I - Ceramic Fiber Braided Rope Impregnated with Inconnel Wire, as carrier, for better resistance to temperature & pressure.

Ceramic Fiber Braided Rope are available with a combination of custom Reinforcement & Impregnation for stringent applications, as per client's requirements.

APPLICATION	Superior replacement to Asbestos Packing, Static/Door seals in Boilers, Stoves, Ovens, Reformers, chemical/glass/coke Furnaces, Kiln Car seals, Expansion joints in building & Industries, Radiant Tube Packing for Heat Treat Furnaces, seals for Boiler sections, Heat Exchanger & Thermocouple Tubes, dummy Bar seals, Insulation of Pipelines, Vessels etc and for any general purpose thermal insulation & sealing.		
SIZE/PACKING	6mm to 100mm or above on request	**SHAPES**	Round, Square & Rectangular cross-section.
TEMPERATURE	Maximum - 1260° C	**MELTING POINT**	1750°C
MOISTURE CONTENT	1.4% Approx.	**BULK DENSITY**	550-650 Kg/cubic meter
THERMAL CONDUCTIVITY	0.18 W/m° K at 1000 ° C	**LOSS ON IGNITION**	Less than 11%
CHEMICAL COMPOSITION	Al2O3 - 44.60%, SiO2 - 54.50%, Others - 0.90%		
CONTINUOUS WORKING TEMPERATURE	800° C (E-Glass Reinforcement) 1000° C (S.S Wire Reinforcement) 1200° C (Inconnel Wire Reinforcement)		

Ceramic Fiber Cloth & Tape (MI-3300 & MI-3310)

PRODUCT DESCRIPTION : These industrial fabrics are woven from superior quality Ceramic (Alumino-Silicate) Fiber Yarn. The Ceramic Yarn used is reinforced with an E-Glass Filament Yarn for better strength. Our products are resistant to oils, greases & most of the organic acids & alkalies.

Also Available : Our Ceramic Cloth & Tape are available with the reinforcement of different type of Metal Wires as per client's requirement.

The Textile fabrics are also available with High Temperature Coating for superior performance.

APPLICATION	Fire-resistant Curtains, Protective Clothing, Controlled cooling of Casting, Insulation of Gas & Steam Turbines, Welding Curtains, Cable & Fuel line protection, Insulation Linings, Wrapping of Exhausts, Flange Jointing with openings, Radiant Heat Shields, High Temperature Gaskets, Air Tube Gaskets etc.		
TEMPERATURE	Maximum - 1260° C	**MELTING POINT**	1750°C
MOISTURE CONTENT	1.4% Approx.	**BULK DENSITY**	550-650 Kg/cubic meter
THERMAL CONDUCTIVITY	0.18 W/m° K at 1000 ° C	**LOSS ON IGNITION**	Less than 11%
CHEMICAL COMPOSITION	Al2O3 - 44.60%, SiO2 - 54.50%, Others - 0.90%		
CONTINUOUS WORKING TEMPERATURE	800° C (E-Glass Reinforcement) 1000° C (S.S Wire Reinforcement) 1200° C (Inconnel Wire Reinforcement) 1440° C (With High Temperature Laminate)		

Rubber Proofed Ceramic Cloth & Tape MI-3350 & MI-3360)

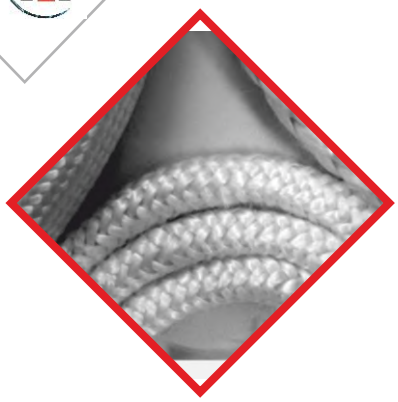
PRODUCT DESCRIPTION : These are manufactured from Ceramic Cloths & Tapes laminated & proofed with superior quality rubber for resiliency & flexibility. Rubber proofed products, due to its excellent flow characteristics, are excellent sealing materials where the flange surfaces are not machined & uniform. Proofed products, under high temperature conditions allows the rubber compound to vulcanize & provide a hard joint for efficient sealing.

Also Available :

Style MI-3370 - Rubber Proofed Graphited Ceramic Tape is specially recommended for sealing doors of hot ovens & fireproof safes, hot air ducts, panels & cowlings.

APPLICATION	It is an all purpose sealing material for Manhole, Hand-holes, Head-holes, Inspection Covers of Boilers, Tanks & Pressure Vessels, and Retort Doors, other applications against Air, Water, Steam & Mild Alkalis etc.
TEMPERATURE	Continuous Working Temperature - 300° C

Fiberglass Rope (MI-4003)



PRODUCT DESCRIPTION : Style MI-4003 is braided from a special Texturize Fiberglass Yarn to form a solid packing. This Glass Fiber Rope is an excellent & economical substitute to conventional Asbestos Rope and has a smooth textured finish, thus, reducing skin irritation which is a major drawback with other Fiberglass Rope available in the market.

Also Available :

The Glass Fiber Rope is also available with Metal Wire inserts depending on application parameters.

This rope is available with impregnation of Graphite based dispersion for enhancing heat dissipation properties.

This rope is available with impregnation of a mineral emulsion for better thermal & flame resistance.

APPLICATIONS	An excellent & economical substitute to Asbestos, it can be used for most of the applications where Asbestos Rope & Packings are used. It is recommended to be used as Static/Door seals in Boilers, Stoves, Ovens, Reformers, chemical/glass/coke Furnaces, Kiln Car seals, Expansion Joints in buildings & industries, Radiant Tube Packing for Heat Treat Furnaces, seals for Boiler sections, Heat Exchangers and Thermocouple Tubes, Dummy Bar seals, insulation of Pipelines, Vessel etc. and for any general purpose thermal insulation and sealing.		
TEMPERATURE	Maximum - 550° C	**PH RANGE**	0 - 14
THERMAL CONDUCTIVITY	0.30 W/m° K at 550° C		

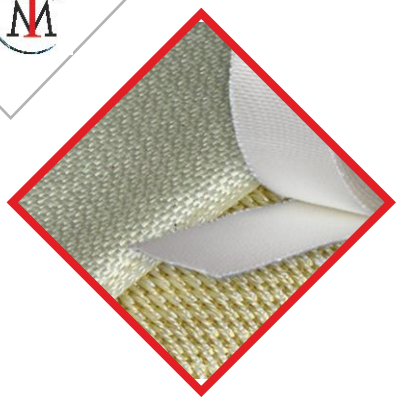
Fiberglass Cloth & Tape (MI-4002 & MI-4001)

PRODUCT DESCRIPTION : These are weaved with Texturize Fibreglass Yarn, these fabrics have a smooth textured appearance and are an excellent & economical substitute to Asbestos Cloth & Tape used for thermal insulation. These industrial fabrics exhibit excellent tensile strength and are unaffected by any incidental spill of oil, water or any chemical attack.

Also Available : These Industrial Fabrics are available with a treatment of mineral emulsion on surface for better thermal & flame resistance.

APPLICATION	An excellent & economical substitute to Asbestos, it can be used for most of the applications where Asbestos Cloth & Tape are used such as for Heat Shields, Removable Insulation Covers, Fire Curtains, Expansion Joints etc.		
THICKNESS	Cloths- 3mm Tapes - 3mm & above on request.		
WIDTH	Cloths- 1000mm Tapes -25mm to 100mm & above on request.		
TEMPERATURE	Maximum - 550° C	**pH RANGE**	0 - 14
THERMAL CONDUCTIVITY	0.30 W/m° K at 550 ° C		

Silica Fiber Cloth & Tape (MI-4005 & MI-4006)



PRODUCT DESCRIPTION : These are weaved from a smooth textured Silica Fiber Yarn, comprising > 96% pure SiO2. The Silica Fiber Fabric exhibits outstanding thermal insulation properties & shows excellent resistance to flame & spark. The fabrics do not shrink in 'Live' heat and retains longevity event at continuous exposure to elevated temperature, owing to its low LOI (Loss on Ignition). These industrial fabrics are non-toxic & non-health hazardous in nature and do not cause any skin irritation even on continuous exposure.

Also Available :

Style MI - 44 - Silica Fiber Cloth treated with Vermiculite based dispersion.

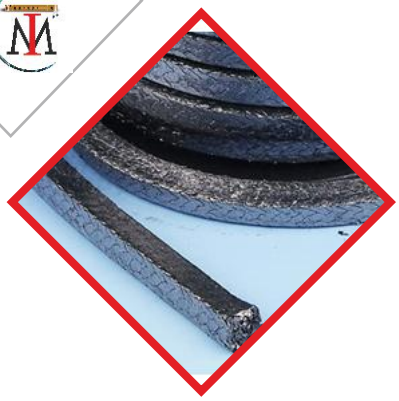
APPLICATIONS	An excellent & economical substitute to Asbestos, it can be used for most of the applications where Asbestos Cloth & Tape are used such as for Heat Shields, Removable Insulation Covers, Fire Curtains, Expansion Joints etc.		
TEMPERATURE	Maximum - 1000° C	**LOI (LOSS ON IGNITION)**	<4% at 900°C
PH RANGE	0 - 14	**BREAKING STRENGTH**	≥ 13 MPa

Silica Fiber Rope (HT-4004)

PRODUCT DESCRIPTION : Style MI-4004 is braided from a smooth textured Silica Fiber Yam, comprising >96% pure SiO2, to form a solid packing. The Silica Fiber Packing exhibits outstanding thermal insulation properties & shows excellent resistance to flame & spark. This packing does not shrink in 'Live' heat and retains longevity even at continuous exposure to elevated temperature, owing to its low LOI (Loss on Ignition). The packing even exhibits good electrical insulation properties and has high tensile strength, which enables it to withstand abrasion and pressure.

APPLICATIONS	It is recommended to be used as Static/Door seals in Boilers, Stoves, Ovens, Reformers, chemical/glass/coke Furnaces, Kiln Car seals, Expansion Joints in buildings & industries, Radiant Tube Packing for Heat Treat Furnaces, seals for Boiler sections, Heat Exchangers & Thermocouple Tubes, Dummy Bar seals, insulation of Pipelines, Vessel etc. and for any general purpose thermal insulation and sealing.		
TEMPERATURE	Maximum - 1000° C	**LOI (LOSS ON IGNITION)**	<4% at 900°C
BREAKING STRENGTH	≥13 MPa		

Ceramic Graphite Gland Packing (MI-3010)



PRODUCT DESCRIPTION : Style MI-3010 is braided from superior grade Ceramic Fiber yarn reinforced with Inconnel wire & impregnated with special lubricant enriched with High Carbon Graphite. This packing is resistant to very high temperature and pressure and is intended to be used for movable components as well. Impregnation of every thread before braiding results in a high performance packing. This packing is available in various sizes from 6 mm to 100 mm or above on request. The rope is available in round, square and rectangular cross-section, as per client's requirements.

APPLICATIONS	This packing is recommended for low & medium pressure Dynamic applications & for High Pressure Static applications. It can be used in Steam, Saline, Acid & Alkali solution except for concentrated ones. It is extremely suitable for Rotary Kiln's Inlets & Outlets.
TEMPERATURE	Maximum - 1450° C Continuous Working Temperature - 1300° C

Greased Graphited Asbestos Gland Packing

PRODUCT DESCRIPTION : Gland Packing provides a dynamic seal for a rod, shaft or stem via a housing or gland that is packed with resilient or semi-resilient material, thus providing a localized contact area, which offers a physical barrier to leakage.

1100 – Lubricated and graphite general purpose asbestos packing for Glands for medium pressure conditions conforming to IS Specification 4687 & DGS&D Specification.

1200 – Incorporated with white metal wire for low friction and greater mechanical durability. Suitable for rotary shafts with peripheral speeds upto 550 m./min. Recommended for steam, hot water, weak acids and alkalis.

1300 – Brass wire reinforced asbestos yarn packing. Specially suited to high speed rotary and reciprocation shafts even at higher temperature and pressure. Incorporation of Brass wire improves its strength and anti-friction properties. It is recommended for saturated and super heated steam, hot water, air, gases, oils, steam, expansion glands, rotary and reciprocating equipments.

1490 – Special grade of asbestos DUPLEX BRAID packing suitably lubricated and treated with graphite to withstand caustic liquors, including caustic potash, soda, lime, ammonia and sulphide. An ideal packing for paper mill application pH 4-12.

1800 – Non-metallic asbestos lubricated and graphite packing for high pressure saturated super heated steam conforming to IS Specification 4687 & DGS&D Specification.

1910 – A closely braided high content asbestos yarn packing, non-metallic, lubricated with special heat resisting dry lubricant. Specially recommended for high pressure super-heated steam services. Excellent soft packing for valve glands, gauge glass fittings, turbines, boilers and similar applications. Please state when spindle/rod is STAINLESS STEEL.

1916 – Braided from high grade asbestos yarn suitably lubricated and reinforced with stainless steel 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.

Pure PTFE Packing With PTFE Dispersion (MI-3901)

PRODUCT DESCRIPTION : MI-3901 is interlocked braided from Pure PTFE Fiber yarns and prelubed with break-in lubricant and incorporated with PTFE based dispersion. The break-in lubricant ensures extra lubrication during the complete operational life and dispersion acts as blocking agents as well as anti-frictional additives. This packing is Non Toxic and Inert in nature, hence, does not contaminate the fluid media. It has low coefficient of friction, thus, ensuring trouble free operation for a longer period. It is a soft resilient packing with high dimensional strength and low maintenance cost.

SERVICE MEDIA & APPLICATIONS	Suitable for all kind of Pumps, Valves, Agitators, Mixers, Dryers, Washers, Refiners, Air Compressors etc. which handles Acids & Alkali, Dyes and Corrosive Chemicals, Bleach, Chloride, Paints, Foodstuffs, Water, Condensate, Oils, Solvents, Caustics, Synthetic Resins etc.
TEMPERATURE	-200° C to +280° C
PRESSURE	Dynamic - 150 bar
PH RANGE	0 to 14

Expanded PTFE Packing With Synthetic Lubricant (MI-3902)

PRODUCT DESCRIPTION : MI-3902 is a multipurpose duplex braided packing braided from a unique Expanded Pure PTFE Fiber yarn which is incorporated with an advanced synthetic lubricant during its manufacturing. The expanded base yarn provides strength and dimensional conformability, thus ensuring easy installation and removal of the packing with excellent pliability. The break-in lubricant, further, lowers the coefficient of friction of the packing and helps the packing to dissipate the excessive heat generated during long time-run of the equipments. the lubricant also ensures cooler shaft runs without wear; hence, reducing the maintenance cost and also fills up the leak paths in the packing. The packing is resistant to most of the industrial chemicals and is non-contaminating in nature.

SERVICE MEDIA & APPLICATIONS	Suitable for all kind of Pumps, Valves, Agitators, Mixers, Dryers, Washers, Refiners etc. handling Acids & Alkali, Dyes and Corrosive Chemicals, Bleach, Chloride, Paints, Foodstuffs, Water, Condensate, Oils, Solvents, Caustics, Synthetic Resins etc.
TEMPERATURE	-200° C to +280° C
PRESSURE	Static - 225 bar; Dynamic - 100 bar.
PH RANGE	0 to 14

Dry Pure PTFE Packing (MI-3921)

PRODUCT DESCRIPTION : MI-3921 is interlocked braided from Dry Pure PTFE Fiber yarn without any lubricant or additives. It ensures safety & purity of the medium with no contamination of the fluid media. It serves as an excellent packing for Oxygen & Hydrogen services. This is a self lubricating packing with very low coefficient of friction and as such safeguards the parent equipments from erosion during operation. The packing needs very little gland adjustment after initial installation and is inert to almost all known chemicals except for some Molten Alkali Metals and Aquaregia.

SERVICE MEDIA & APPLICATION	Suitable for use in Liquid Oxygen Pumps & Valves, Air Compressors, Mixers, Agitators etc. handling Acids & Alkalies, Solvents, Chemical Equipment Glands, Hydrogen Services, Food & Pharma industries etc.
TEMPERATURE	-200° C to +280° C
PRESSURE	Static - 200 bar; Dynamic - 100 bar
PH RANGE	0 to 14

Special PTFE Packing (MI-3922)

PRODUCT DESCRIPTION : MI-3922 is a duplex braided packing braided from soft PTFE Fiber Yarn & impregnated with a proprietary Food Grade break-in lubricant, which ensures extra lubrication during the operation of the equipments. This packing is very pliant and dimensionally stable resulting in leakage free operational life for a longer period and reduced maintenance cost. The packing is inert in nature and inherently non-toxic and, hence, ideal to be used in F & B Industry & Pharmaceutical applications.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Food & Beverages Industry, Pharmaceutical applications, Hygiene Industry etc. It shows great results in Pumps & Valves involving Chlorine & Chlorine Dioxide, Bleach, Synthetic Resins, Corrosive Media, Drinking Water, Oils etc.
TEMPERATURE	-200° C to +280° C
PRESSURE	Static - 250 bar; Dynamic - 100 bar.
PH RANGE	0 to 14

PTFE Graphite Packing (MI-3903)

PRODUCT DESCRIPTION : MI-3903 is multipurpose duplex braided packing braided from a unique Expanded PTFE Yarn intimately bonded with High Grade Graphite particles during its manufacturing. The PTFE and Graphite and excellently inherits the benefits of the polymer and the mineral. the integral Graphite, which is entrapped in expanded PTFE matrixes, provides excellent lubrication, thermal stability and high thermal conductivity to the packing. This packing is inert to virtually all chemical attacks and exhibits excellent anti-frictional and heat conduction properties, thus, ensuring resistance to hardening unlike the conventional PTFE packings. The packing is easy on shafts and can be installed and removed with excellent pliability.

This packing might further be incorporated with break-in lubricant for cooler shaft runs, depending upon applications.

Also Available :

MI-3904 - PTFE Graphite Packing Treated with special Graphite Based Dispersion on Surface.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Pumps, Valves, Agitators, Mixers, Washers etc. handling Acids & Alkali, Boiler Feed Water, Bleached Water, Non Abrasive Liquor, Aggressive Chemicals, Hydrocarbons etc.
TEMPERATURE	-240° C to +280° C
PRESSURE	Static - 250 bar; Dynamic - 100 bar
PH RANGE	0 to 14

PTFE Graphite Packing with HIGRAPH dispersion (MI-3903H)

PRODUCT DESCRIPTION : MI-3903H is a duplex braided packing made from soft Expanded PTFE Graphited yarn. It is a homogeneous fiber, developed especially for compression packings with heat transfer & lubricant components forming an integral part of the yarn. The packing is then, further, impregnated with proprietary HIGRAPH dispersion and integrates all the benefits of MI-3903H and, in addition, shows enhanced sealing properties and better longevity.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Steam Dryers, Water Pumps, Agitator, Steam/Gas Valves, Chemical Pumps & Valves, Flange Grooves, Cylinders, reactor Vessels etc. handling Solvents, Resins, Effluents etc.
TEMPERATURE	-240° C to +280° C
PRESSURE	Static -300 bar; Dynamic - 150 bar.
PH RANGE	0 to 14

PTFE Graphite Packing with Synthetic Fiber Reinforcement (MI-3501)

PRODUCT DESCRIPTION : MI-3501 is a unique "low compression" braided Non Asbestos Gland Packing manufactured from PTFE Graphite Yarn reinforced with high tensile strength Synthetic Fiber. The PTFE Graphite Yarn used in constructing the packing is intimately bonded with Graphite for better heat dissipation and cooler shaft runs. Each Yarn of PTFE Graphite is then reinforced with a Synthetic Fiber to increase the longevity of the packing by providing strength to it.

It is seen that when the gland follower is used time and again to tight and adjust the packing rings to stop leakage, the packing rings get compressed and leads to a void in the stuffing box. This void is either filled by inserting more rings or replacing all the old rings with new ones leading to increase in maintenance cost. But the use of this low compression packing helps to do away with this and reduces the maintenance cost in long run.

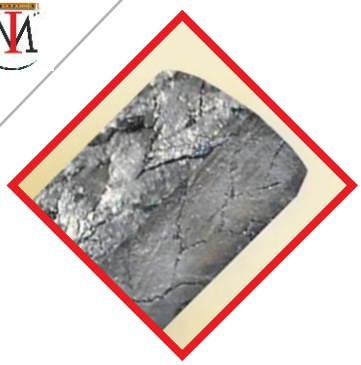
SERVICE MEDIA & APPLICATIONS	Extremely suitable for High Speed Centrifugal and Reciprocating Pumps, Cooling Tower Pumps, Mild Ash Slurry Pumps, Boiler Feed Pumps, Mixers, Agitators, Driers, Valves, Refiners etc. handling Acids, Alkalies, Mild Slurry and Sea Water etc.
TEMPERATURE	-240° C to +280° C
PRESSURE	Static - 250 bar; Dynamic - 150 bar
PH RANGE	0 to 14

PTFE/PTFE Graphite Packing with Elastomeric Core (MI-MARINE)

PRODUCT DESCRIPTION : MI-MARINE is a unique braided packing braided from either Pure PTFE Fiber Yarn or PTFE Graphite Yarn over a Hollow or Solid core, of a Special Elastomer, conforming to IS specification. The elastomeric core enhances the memory & resiliency, allowing the packing to withstand shaft run outs and radial vibrations while controlling leakage with minimum gland adjustments. It finds immense use in marine applications due to its ability to retain its original shape & strength even after prolonged use. The dimensions of the Elastomer Cord in the core are determined as per client's requirements.

SERVICE MEDIA & APPLICATIONS	Extremely suitable for Marine applications such as in Stern Tubes, Rudder Posts, Dry Dock Pumps, Worn-out Shaft/Stem of Pumps & Valves etc.
TEMPERATURE	-240° C to +280° C
PRESSURE	Static -250 bar; Dynamic - 150 bar.
PH RANGE	0 to 14

Premium Expanded Graphite Packing (MI-3910)



PRODUCT DESCRIPTION : MI-3910 is a unique interlocked braided gland packing braided from premium grade Expanded Flexible Pure Graphite Yarn and incorporating sacrificial metal corrosion inhibitor to protect the shaft from galvanic corrosion. This packing exhibits self generating lubrication that accommodates & aids self-adjustment on tightening. It shows excellent chemical resistance capability and is highly anti-frictional, hence no fear of scoring of sleeves/plungers etc. It has excellent resistant to high temperature and even shows considerable resistance to flame for a brief period. The Graphite Yarn is reinforced with a Non Metallic carrier yarn for added strength.

Also Available :
MI-3910P - Expanded Graphite Non Metallic Packing with proprietary PTFE based dispersion.
MI-3910H - Expanded Graphite Non Metallic Packing with proprietary graphite based HIGRAPH dispersion.

SERVICE MEDIA & APPLICATIONS	Suitable for Dryers, Reactors, Pumps and low pressure Valves handling Acids, Alkalies, Solvents, thermic Fluid, Petrochemical, Boiler feed Water, Condensate etc.		
TEMPERATURE	-240° C to +650° C (+2700° C in Non Oxidizing Media)		
PRESSURE	Static - 100 bar; Dynamic - 35 bar	**PH RANGE**	0 to 14

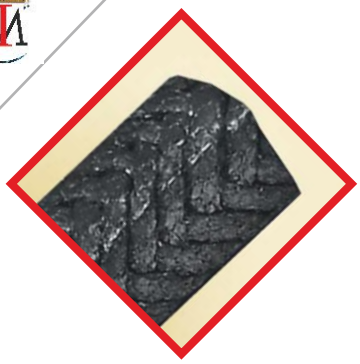
Premium Expanded Graphite Metallic Packing (MI-3911)

PRODUCT DESCRIPTION : MI-3911 is an Expanded Pure Graphite interlocked braided gland packing with high carbon content and reinforcement of Inconnel wire in each strand. The packing is incorporated with sacrificial metal corrosion inhibitor (passive) to protect the shaft from galvanic corrosion and also for reduction of Loss on Ignition. This packing integrates all the benefits of MI-3910 and, in addition, shows excellent resistance to pressure surge due to the reinforcement of special grade of Inconnel wire, which enhances the overall mechanical strength of the packing. This packing is extremely recommended for high pressure static applications.

Also Available :
MI-3911S - Expanded Graphite Metallic Packing with reinforcement of Stainless Steel (SS) wire.
MI-3911H - Expanded Graphite Metallic Packing with Inconnel wire reinforcement and impregnated with proprietary graphite based HIGRAPH dispersion.

SERVICE MEDIA & APPLICATIONS	Suitable for Rotary Kiln and Valves handling superheated and Saturated Steam, Hydrocarbons, all Non-Oxidizing liquids and gases, Corrosive/Non-Corrosive gases, Acids, Alkalies, Solvents, thermic Fluid, Dyes & Chemical, Petrochemicals, Fuel Oil & Lube Oil etc.		
TEMPERATURE	-240° C to +650° C	**PRESSURE**	Static - 450 bar
PH RANGE	0 to 14		

Fire Safe Packing (MI-3912)

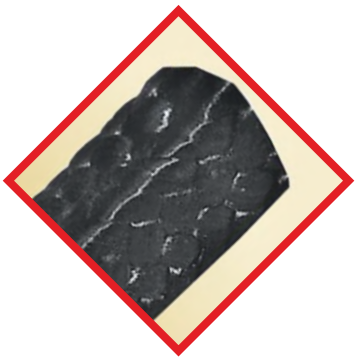


PRODUCT DESCRIPTION : MI-3912 is an Expanded High Purity Graphite Packing (high carbon content) having an Inconnel Wire Mesh jacketing over each yarn, further reinforced with multiple Inconnel wire inside each yarn. This packing exhibits extreme pressure and extrusion resistance properties. the packing exterior is densely impregnated with custom made lubricating agents to reduce stem friction and a corrosion inhibitor (passive) to prevent galvanic corrosion of stems. This packing can withstand extreme temperature, mechanical stress and cyclic loads owing to its construction.

SERVICE MEDIA & APPLICATIONS	Suitable for Valves, Screw Conveyors, Dryers etc. handling Superheated and Saturated Steam, Hydrocarbons, all Non-Oxidizing liquids and gases, Corrosive/Non-Corrosive gases, Hot Ash, Thermic Fluid, Dyes & Chemical, Fuel Oil & Lube Oil etc.
TEMPERATURE	-240° C to +650° C
PRESSURE	Static - 500 bar
PH RANGE	0 to 14

Graphite Filament Yarn Packing (MI-3913)

PRODUCT DESCRIPTION : MI-3913 is a specially designed Ultra Graphite Filament Yarn braided packing impregnated with a custom made High Performance Graphite based lubricant and incorporating corrosion inhibitors to present pitting. The packing has optimum graphite purity for safe initial break-in and has high breaking strength. It has very low coefficient of friction, high thermal conductivity & sliding velocity, exhibits excellent resistance to chemical and remain soft and pliant even in high temperature and pressure condition. The excellent self lubrication and heat conductivity of this packing enables it to be used on Boiler Feed Water, Condensate and Emissive Petrochemicals where fluid film between shaft and the packing is in vapor state.



SERVICE MEDIA & APPLICATIONS	Suitable for Pumps, Valves, Agitators, Mixers etc. handling Superheated Steam, Thermic Fluid, Strong Chemicals such as SO2 & SO3, Acids & Alkali, Fuel oil/Lube Oil, Hydrocarbons, Hot Tar, Boiler Feed Water & Condensate etc.
TEMPERATURE	-200° C to +600° C
PRESSURE	Static - 400 bar; Dynamic - 150 bar.
PH RANGE	0 to 14

High Temperature Special Combination Packing (MI-3914)

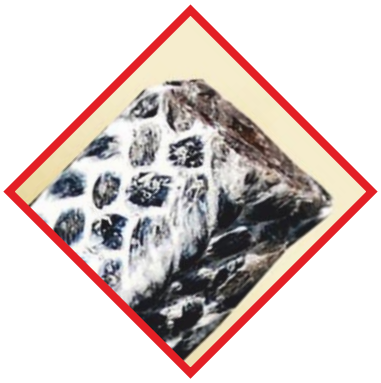
PRODUCT DESCRIPTION : MI-3914 is a unique multipurpose braided Hybrid Combination Packing of Non Metallic Expanded Pure Graphite Yarn reinforced with High Structural Carbon Filament Yarn at four corners and core, in interlock braid. This packing is one of the most versatile one in the industry and is incorporated with sacrificial corrosion inhibitors to prevent pitting of parent equipment. The packing can further be impregnated with proprietary HIGRAPH dispersion for longer dry run capabilities. The carbon corners provide excellent mechanical strength and extrusion resistance to the packing and the self lubricated soft Expanded Graphite Yarn at the faces are gentle on shafts. This packing is highly chemical resistant and shows good thermal conductivity. This can be used both in Dynamic and Static applications.

Also Available : This packing can also be made available with a core of Pure Expanded Graphite Yarn instead of Carbon Yarn Core for more resiliency and cost effectiveness.

SERVICE MEDIA & APPLICATIONS	Suitable for Pumps and Valves etc. handling Caustics, Water, Steam, FCC Catalyst & bottom Slurry as found in Refinery, Hydrocarbons, Acids & Alkali, Fuel/Lube Oil, Non-abrasive Liquor, Condensate, Demineralized Water etc.		
TEMPERATURE	-240° C to +650° C	**PRESSURE**	Static - 250 bar; Dynamic - 100 bar
PH RANGE	0 to 14		

Carbon Filament Yarn Packing (MI-3915)

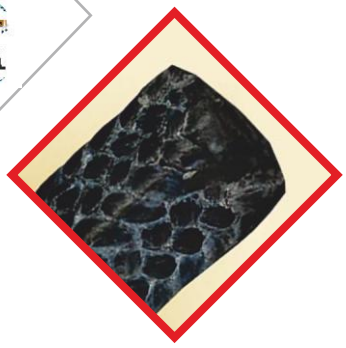
PRODUCT DESCRIPTION : MI-3915 is a special packing manufactured from a High Structural Carbon Fiber Yarn. The packing is thoroughly impregnated with a custom made Graphite based HIGRAPH dispersion to act as blocking agent. The interbraid construction and the blocking agent prevent body leakage of any gaseous or liquid material. The packing is also incorporated with Molybdenum based metal corrosion inhibitors to prevent pitting of the stem. This packing has high mechanical strength & dimensional stability, low coefficient of friction, excellent resistance to chemicals and excellent heat dissipation for cooler shaft runs without wear to packing volume, thus, ensuring excellent Sealing service.



Also Available : MI-3915P - Carbon Fiber Non Metallic Packing with proprietary PTFE based dispersion.

SERVICE MEDIA & APPLICATIONS	Suitable for Pumps, Valves, Agitators, Mixer, Dryers etc. handling Caustics, Acids & Alkali, Liquor, Steam, Thermic Fluid, Boiler Feed Water, Condensate, Demineralized Water, Fuel/Lube Oil, Gases, Hydrocarbons etc. Also used in Stem Tubes, Soot Blowers & Reaction Vessel.		
TEMPERATURE	-240° C to +650° C	**PRESSURE**	Static - 250 bar; Dynamic - 200 bar
PH RANGE	0 to 14		

Metallic Carbon Filament Packing (MI-3915IH)



PRODUCT DESCRIPTION : MI-3915IH is a high grade Carbon Fiber Yarn Packing reinforced with Inconnel Wire inter braided around a homogenous Carbonaceous core enriched with natural graphite. The packing is impregnated with a custom made High Performance Graphite based lubricant and incorporates corrosion inhibitors to prevent pitting of the stems. This packing has high mechanical strength & dimensional stability, low coefficient of friction, heat resistance capability and excellent interness to chemicals. It can withstand higher temperature & pressure as compared to MI-3915.

Also Available : MI-3915SH - Metallic Carbon Filament Packing with reinforcement of Stainless Steel (SS) wire and HIGRAPH dispersion.

SERVICE MEDIA & APPLICATIONS	Suitable for Valves in Utility & Power Generation Plants, Spreader Stroker services, Calcinators, Steam vent valves, Reheat Steam Control Valves etc. handling Acids, Alkalis, Solvent, Organic Chemical, Gases, Steam, Thermic Fluids, Hydrocarbon, Superheated and Saturated steam etc.		
TEMPERATURE	-240° C to +650° C (+800° C in Non-Oxidizing media)		
PRESSURE	Static - 350 bar	**PH RANGE**	0 to 14

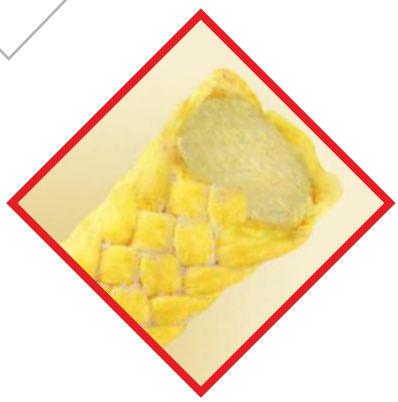
Special Combination Packing with Aramid and Carbonaceous Yarn (MI-31007)

PRODUCT DESCRIPTION : MI-31007 is a duplex braided packing interbraided from a unique Copolymer Fiber yarn (Aramid Filament Yarn) in conjunction with high structural Amorphous Carbonaceous yarn. This packing is treated with custom made "HIGRAPH" dispersion with further impregnation of a break-in lubricant. The dispersion makes the packing dense & conformable while enhancing the ability of the packing to be easily installed and removed with excellent pliability. The break-in lubricant lowers the coefficient of friction of the packing and helps the packing dissipate the excessive heat generated during long-time run of the equipments and, ensure cooler shaft runs without wear. This packing has very high strength & tenacity with an excellent resistance to abrasive media. The packing also exhibits considerable resistance to aggressive media without being too harsh on shafts/sleeves.

Also Available : This packing can also be made available with a Hollow core of Elastomeric Cord for better memory & resiliency.

SERVICE MEDIA & APPLICATIONS	Extremely Suitable for Pumps, Valves, Agitators, Reactors, Clinker Grinder, Autoclave, Blenders, Extruders, Rotary Vacuum Dryer etc. handling Sludge & Sewerage in Water Treatment and ETP plants. Used for harsh media such as Molten Synthetics, Epoxy Resins, Viscous Fluids, Fruit Pulp, High Abrasive Bleach or Wood pulp, Concrete, Ash Slurry, Mud Slurry, Fly Ash water, Chemical Slurries, Coal Dust, Turbid Water, Saline Sea Water, Brines, Crude Oil, Fuel Oil etc.		
TEMPERATURE	-240° C to +350° C	**PH RANGE**	1 to 13
PRESSURE	Static - 450 bar; Dynamic - 200 bar		

Pure Aramid Filament Yarn Packing (MI-3908)



PRODUCT DESCRIPTION : MI-3908 is a duplex braided packing braided from a unique copolymer fiber yarn. This packing is impregnated with PTFE (Polytetrafluoroethylene) dispersion with further incorporation of a break-in and surface run-in lubricant. The PTFE dispersion makes the packing dense and conformable while enhancing the ability of the packing to be easily installed and removed with excellent pliability. The break-in lubricant lowers the coefficient of friction of the packing and ensures cooler shaft runs during long-time run of the equipments, thus, avoiding erosion of sleeves/shaft. This packing has very high strength and tenacity resulting in an excellent resistance to abrasive media. The packing also shows very good resistance to corrosive and aggressive media.

Also Available : MI-3908PL - Pure Aramid Filament Packing With Proprietary PTFE Based Dispersion.

SERVICE MEDIA & APPLICATIONS	Extremely suitable for Pumps, Valves, Agitators, Reactors, Clinker Grinder, Autoclave, Blenders, Extruders, Rotary Vacuum Dryer etc. handling Sludge & Sewerage in Water Treatment and ETP plants. Used for harsh media such as Molten Synthetics, Epoxy Resins, Viscous Fluids, Fruit Pulp, High Abrasive Bleach or Wood Pulp, Concrete, Ash Slurry, Mud Slurry, Fly Ash Water, Chemical Slurries, Coal Dust, Turbid Water, Saline Sea Water, Brines, Crude Oil, Fuel Oil etc.
TEMPERATURE	-200° C to +300° C
PRESSURE	Up t0 500 bar
PH RANGE	1 to 13

Pure Aramid Staple Fiber Packing (MI-3909)

PRODUCT DESCRIPTION : MI-3909 is a new generation cost-effective Aramid Staple Fiber Packing, in duplex braided from, impregnated with PTFE and break-in lubricant. It further incorporates special run-in lubricant on the surface to make is anti-frictional. The packing shows superb resistance to abrasion and does not harm the parent equipment. In spite of its high tenacity, it can also be used for soft shaft/sleeve without any fear of damaging the same.

SERVICE MEDIA & APPLICATIONS	Extremely suitable for Pumps, Valves, Agitators, Reactors, Clinker Grinder, Autoclave, Blenders, Extruders, Rotary Vacuum Dryer etc. handling Ash Slurry, Mud Slurry, Fly Ash water, Chemical Slurries, Sewage, Wash Water, Raw Water, Wood Pulp & Bleach, Juice Pulp, Stock, Saline &Turbid Water etc.
TEMPERATURE	-200° C to +300° C
PRESSURE	Up to 350 bar.
PH RANGE	1 to 13

Special Carbonaceous Aramid Packing (MI-31002)

PRODUCT DESCRIPTION : MI-31002 is a duplex braided High Performance Packing braided from high strength Pure Aramid Yarn. This packing is further treated with custom made Graphite based HIGRAPH dispersion with further impregnation of a break-in lubricant. Further treatment with aqueous PTFE emulsion makes the packing dense & conformable while enhancing the ability of the packing to be easily installed and removed with excellent pliability. The break-in lubricant lowers the coefficient of friction of the packing and helps the packing dissipate the excessive heat generated during long-time run of the equipments and, ensure cooler shaft runs without wear. This packing has very high strength & tenacity with an excellent resistance to abrasive media. The packing also exhibits considerable resistance to aggressive media. The high tenacity of Aramid fiber works in tandem with the heat dissipation property of integral Graphite dispersion resulting in a packing, which shows excellent tear and oxidation resistance without being harsh to shaft and sleeves.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Pumps, Mixers, Agitators etc. handling Sludge and Sewerage in Water treatment and ETP plants. It is selectively used for harsh media such as Brine Solution, Sea Water, Resin Synthetics, Epoxy Resins, Viscous Fluids, Fruit Pulp, High Abrasive Bleach, Wood Pulp, Concrete, Ash Slurry, Mud Slurry, Fly Ash, Chemical Slurries etc.				
TEMPERATURE	-200° C to +300° C	**PRESSURE**	Up to 300 bar	**PH RANGE**	3 to 12

Aramid & PTFE Combination Packing (MI-3905)

PRODUCT DESCRIPTION : MI-3905 is a Multi-yarn duplex braided Hybrid Packing having Pure Aramid Yarn Corners with Pure PTFE Yarn at faces and a core of highly resilient and high tensile Aramid Fiber. The Aramid Yarn is lubricated with highly anti-frictional Fluoropolymer dispersion and a break-in lubricant, while the PTFE faces are lubricated with high temperature resisting inert lubricant. The tough PTFE impregnated Aramid Yarns ensure corner safety & dimensional stability, allowing the packing to be used at very high pressure conditions. The strong Aramid Fiber avoids corner failures in reciprocating lunger pump. The PTFE Yarns at the running surface provides excellent chemical resistance, low coefficient of friction and virtually eliminates shaft scoring. This packing is non-toxic and is ideal for food & pharmaceutical industries.

Also Available : This packing can also be made available with a core of Pure PTFE Yarn instead of Aramid Yarn Core for more resiliency and cost effectiveness.

SERVICE MEDIA & APPLICATIONS	Suitable to be used in Pumps including Centrifugal, Reciprocating and Plunger Pumps, Mixers, Valves, Extruders, Reactors, Agitators etc. carrying Pigments, Dyestuffs, Paints, Emulsions, Synthetic Molten Materials, Fine Particle Slurries, Detergents, Tri Sodium Phosphate, Hydrazine, Sodium Hexamita Phosphate etc. Extremely durable packing to be used in High Pressure Liquid Ammonia Pumps, Urea & Carbamate Condensate pumps as found in fertilizer industry.		
TEMPERATURE	-200° C to +280° C	**PH RANGE**	1 to 13
PRESSURE	Static - 500 bar; Dynamic - 300 bar		

Aramid & PTFE Graphite Combination Packing (MI-3906)

PRODUCT DESCRIPTION : MI-3906 is a high performance Combination Packing of Aramid Fiber Yarn at the corners & Expanded PTFE Graphite solid yarn at the faces having core of Aramid yarn. The Aramid yarn is impregnated with highly anti-frictional Fluoropolymer dispersion and special break-in-lubricant. This packing is ideal for services where chemical resistance, high strength & sliding properties are essential. The special Aramid Fiber at the corners enhances pressure & extrusion resistance of the packing even in reciprocating equipments such as plunger pumps. The PTFE Graphite Yarns at the faces facilitates low friction for shafts due to its inherent characteristic of heat dissipation and ensures cooler shaft run.

Also Available : This packing can also be made available with a core of Pure PTFE Graphite Yarn instead of Aramid Yarn Core for more resiliency and cost effectiveness.

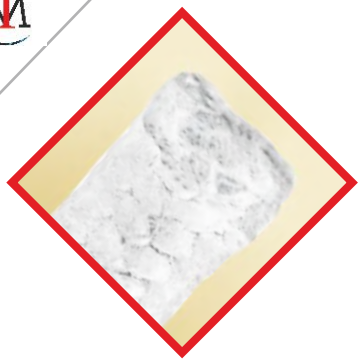
SERVICE MEDIA & APPLICATIONS	Suitable to be used in Plunger & Centrifugal Pumps, Agitators, Digestors, Reactors, Autoclaves &Booster Pumps handling Ammonia & Carbomate solution, Liquor Pumps in Paper Mills like Black & White Liquor, Sewage Water, Fine Slurry Pumps, Industrial Water, Oils, Greases, Weak Acids & Alkali Solutions, Tri Sodium Phosphates, Sodium Hexamate Phosphate, Emulsion etc.
TEMPERATURE	-200° C to +280° C
PRESSURE	Static - 500 bar; Dynamic - 300 bar
PH RANGE	1 to 13

Special Combination Zebra Packing with Aramid & PTFE Graphite Yarn (MI-3907)

PRODUCT DESCRIPTION : MI-3907 is a High Performance Zebra Patterned Packing braided from PTFE impregnated Pure Aramid yarn interfaced with PTFE Graphite Solid yarn with inter break-in-lubricant. The packing shows excellent combination of tough and soft yarn making the packing highly stable, extrusion resistance & at the same time anti-frictional even in reciprocating applications.

SERVICE MEDIA & APPLICATIONS	Suitable to be used in Reciprocating & Centrifugal Pumps, Agitators, Reactors, Mixers etc. handling Liquor like Black & Green Liquor, Fine Chemical Slurry, Powdered Dry Chemicals, Synthetic Resins, Water Emulsion, Paper Stock, Weak Acids & Alkali solutions etc.
TEMPERATURE	-200° C to +280° C
PRESSURE	Up to 300 bar.
PH RANGE	1 to 13

Acrylic Fiber Packing with Fluoropolymer Dispersion (MI-3970)

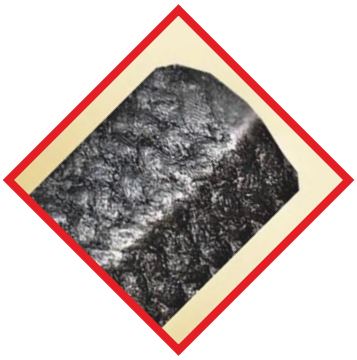


PRODUCT DESCRIPTION : MI-3970 is interlocked braided from Acrylic Fiber which is impregnated with a custom made PTFE dispersion & further lubricated with break-in lubricant that facilitates low friction and make the packing dense, resilient and flexible. It has comparatively better mechanical strength & chemical resistance as against natural & Vegetable Fiber yarns. It is a general purpose packing and an economical choice for fluid handling equipment.

SERVICE MEDIA & APPLICATIONS	Extremely suitable for Pumps, Reactors, Agitators & Knife Gate Valves involving Salt Solutions, Mild Abrasives, Brine Solution, Mild Acids & Alkali, Foodstuffs and Water Handling Equipments.
TEMPERATURE	Ambient to +260^{0} C
PRESSURE	Static - 150 bar; Dynamic - 100 bar
PH RANGE	3 to 10

Acrylic Fiber Packing with HIGRAPH dispersioN (MI-3971)

PRODUCT DESCRIPTION : MI-3971 is interlocked braided from Acrylic Fiber which is impregnated with a custom made HIGRAPH dispersion that increases the service temperature & pressure resistance capability of the packing. It has comparatively better mechanical strength & chemical resistance as against natural & Vegetable Fiber Yam. It is a general purpose packing and an economical choice for fluid handling equipment. it is not meant to be used in food & pharmaceutical industry.



SERVICE MEDIA & APPLICATIONS	Extremely suitable for Pumps & Valves handling Salt Solution, Mild Abrasives, Mild Acids & Alkali, Brine Solution and Water Handling Equipments.
TEMPERATURE	Ambient to +300^{0} C
PRESSURE	Static - 150 bar; Dynamic - 100 bar.
PH RANGE	3 to 10

Novoloid/Kynol Fiber Packing (MI-3980)

PRODUCT DESCRIPTION : MI-3980 is interlock from a new high performance Synthetic Yarn called Novoloid. This packing is impregnated with PTFE dispersion & break-in lubricant. This packing exhibits the strength of Aramid Fiber & chemical resistance of PTFE & is proved to be a multipurpose packing for Paper & Pulp industry. It is non-staining & non-abrasive in nature as compared to other similar packing, thus, ensuring the avoidance of shaft scoring as common with other Synthetic Fibers Packing. This packing lacks the stiffness of conventional Synthetics and hence, readily conforms to Stuffing Box configuration. It can be installed easily and required minimal gland torque and very less adjustments.

SERVICE MEDIA & APPLICATIONS	Suitable to be used in Pumps, Agitators & Mixers etc. handling Chemical Slurries, Mild Acids, Alkali, Paper & Pulp Applications, Liquor, Water Sewage etc.
TEMPERATURE	-150^{0}C to +260^{0}C
PRESSURE	Static - 500 bar; Dynamic - 250 bar
PH RANGE	1 to 13

Self Lubricated Non Asbestos Graphited Packing (MI-3470)

PRODUCT DESCRIPTION : MI-3470 is a multipurpose duplex braided packing braided from a unique Non Asbestos Yarn intimately treated with proprietary Graphite based HIGRAPH dispersion. Further, the packing is incorporated with 'Gel' type break-in lubricant and low viscous surface run-in lubricant. This packing is self lubricated and highly efficient packing requiring minimal gland adjustments during operation and low maintenance cost due to its longevity. The special lubricants ensures cooler shaft runs and the Graphite based dispersion ensures dissipation of excess heat generated due to long time run of equipments. This packing is highly recommended for mild applications such as DM Water, Plain Water, Hot water, Cold Water etc.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Marine Industry and land based Rotating, Reciprocating and Centrifugal Pumps handling all kind of Water, Oil, very Mild Acids and Alkalies etc..
TEMPERATURE	-40^{0}C to +200^{0}C
PRESSURE	Static - 100 bar; Dynamic - 50 bar.
PH RANGE	3 to 10

PRODUCT DESCRIPTION : MI-3925 is manufactured from 100% virgin Expanded PTFE (Polytetrafluoroethylene), also known by the name of Teflon, designed mainly to be used as gap fillings in valve glands. This is an excellent Homogeneous Extruded and a low friction packing having high degree of pliability enabling it to confirm to valve stuffing box flaws and irregularities. With excellent chemical resistance and easy installation, it is cost effective alternative to other valve packings. The rope is strong and stable, but extremely flexible and can withstand vibration at wide operating range in various applications. The Universal Rope is available in round cross-section in various sizes.

SERVICE MEDIA & APPLICATIONS	Suitable for Valves handling Corrosive Liquids & Aggressive Chemicals/Gases with the exception of elemental Fluorine & Molten Alkali Metals. It is safe to be used in Food & Pharmaceutical applications.
TEMPERATURE	-200^{0}C to +280^{0}C
PRESSURE	Static - Full Vacuum to 200 bar
PH RANGE	0 to 14

PTFE Impregnated Glass Fiber Packing (MI-3950)

PRODUCT DESCRIPTION : MI-3950 is a Non Asbestor duplex braided gland packing impregnated with PTFE based dispersion and incorporating break-in lubricant. The Fiberglass Yarn is in fibrous form and is manufactured from Inorganic Refractory Oxides. The Packing is highly resistant to any known chemicals and is dense in nature. The Packing is highly resilient and anti-frictional, which doesn't score the parent equipment in dynamic application. This packing is an economical and excellent substitute to PTFE Impregnated Asbestos Packing and is Non-Health hazardous, Non-Toxic and Eco-friendly unlike the latter, which has been found to be health hazardous. The Fiberglass Yarn used in manufacturing the packing is effective in gaseous, liquid and viscous chemical applications alike and the addition of Fluoropolymer dispersion enhances the properties of the finished packing.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Pumps, Valves, Reactors, Mixers etc. handling Acids and Alkalies, all Non-Oxidizing Liquids and Gases, Dyes & Chemicals, DM Water, Condensate etc.
TEMPERATURE	-40^{0}C to +300^{0}C
PRESSURE	Static - 200 bar; Dynamic - 150 bar
PH RANGE	0 to 14

Fiberglass Metallic Packing with HIGRAPH Dispersion (MI-3951H)

PRODUCT DESCRIPTION : MI-3951H is a High Temperature Self Lubricated & Graphited Non Asbestos gland packing interlocked/duplex braided from Special Glass Fiber yarn. The Fiberglass Yarn is in fibrous from and is manufactured from Inorganic Refractory Oxides. The packing is impregnated with Anti-frictional Graphite Flake having incorporation of proprietary Graphite based HIGRAPH dispersion. This packing has superior resistance to heat and combustion & is inert to most chemicals & gases. It retains its high tensile strength even at elevated temperature and does not shrink in 'Live' heat. the incorporation of special lubricant increases the lubricating and heat dissipation factor & ensures high density of the packing whereas the reinforcement of Inconnel Wire aids in combating high temperature and pressure. It is an economic & efficient replacement to other expensive Non-Asbestos Packing. This packing can be used for Static Applications only and is excellent for Hydrotest of Heat Exchanger, Furnace, Valve etc.

Also Available :
MI-3951 - Non-Metallic Fiberglass Packing with HIGRAPH Dispersion.
MI-3951SH - SS Wire Reinforced Fiberglass Packing with HIGRAPH Dispersion.

SERVICE MEDIA & APPLICATIONS	Suitable for use in Gate and Glove Valve, Knife Gate Valve, Furnaces & Ovens in Steel & Chemical industry, Fuel Gas Valves, Flanges, Kiln etc. handling Mild Acid & Alkali, Super heated and Saturated Steam, Dyes and Chemicals, Non-Oxidizing Liquids & Gases, Water etc.				
TEMPERATURE	+850^0 C	**PRESSURE**	Static - 250 bar	**PH RANGE**	0 to 14

Flax Fiber Packing (MI-3961)

PRODUCT DESCRIPTION : MI-3961 is made from long Flax fiber yarn, which is impregnated with PTFE & additional lubricant to make it water resistant. The packing might be further impregnated with mica flakes for dissipation of heat generated due to rotation of shafts. Combining strength, firmness, flexibility, lubricity and compressibility, it is widely used in hydraulic applications.
Other variations of this packing can be developed for customized applications.

SERVICE MEDIA & APPLICATIONS	Extremely suitable for Marine/Shipping duties such as on Stern Glands and Rudder Posts, Bilge Pumps & Valves etc. Non-marine applications include Pumps & Valves handling Waste Water or Sewerage such as Paper Mills, Pharmaceuticals & Food Industry.
TEMPERATURE	-40^0 C to +120^0 C
PRESSURE	Static - 200 bar ; Dynamic -100 bar.
PH RANGE	5 to 10

Ramie Fiber Packing (MI-3960)

PRODUCT DESCRIPTION : MI-3960 is made from natural Ramie fiber, which is extremely strong and is, therefore, highly resistant to wear & to rotting. The long-term PTFE impregnation is bound to the yarn is a special proprietary process resulting in a consistent packing of uniform density and compressibility. The packing is further treated with inert lubricant for longevity.

SERVICE MEDIA & APPLICATIONS	Extremely suitable for Pumps & Valves carrying Raw Water, Chilled Water, Cooling Water, Sewerage Treatment Plants, Paper industry etc.
TEMPERATURE	-30° C to +150° C
PRESSURE	Static - 200 bar; Dynamic -40 bar
PH RANGE	4 to 11

Ceramic Fiber Paper (MI-HICERA)

PRODUCT DESCRIPTION : MI-HICERA is Ceramic Fiber Paper, which is manufactured from Ceramic Bulk Fiber comprising high-temperature resistant inorganic refractory oxides of "Alumina" & "Silica." The Ceramic Paper is manufactured in a very systematic method involving various processes. The product contains a small percentage of organic material to give it an extra ordinary pliability. Ceramic Fiber Paper features low thermal conductivity, excellent thermal shock stability, and chemical corrosion resistance. It exhibits excellent non-wetting characteristics i.e., it is unaffected by incidental spill of oil & water and its thermal and physical properties restored after drying. The Ceramic Paper, due to its inherent characteristics, it the right choice for applications requiring direct contact with molten Aluminum & Zinc.

APPLICATIONS	It is an excellent substitute to Asbestos products insulation. It can be used as Gasketing between Aluminum and Zinc trough sections, for Aluminum Casting and Fabrication, Refractor back-up lining & insulation for Induction Fumaces & other Industrial Equipments, Insulation Packing in the form of Gaskets for any High Temperature applications, for Hot Top Lining & Combustion Chamber Liners etc.		
CLASSIFICATION TEMPERATURE	1260° C	**MELTING POINT**	1750° C
THERMAL CONDUCTIVITY	0.13 W/m° K (at 600° C)	**LINEAR SHRINKAGE**	3.5% maximum at 1260° C for 24 hours
AVERAGE DENSITY	200 - 220 Kg/m^3	**TENSILE STRENGTH**	750 kN/m^2
STANDARD SIZES	Width - 1220 mm & other on request; Thickness - 2 mm, 3 mm, 5 mm & other on request		

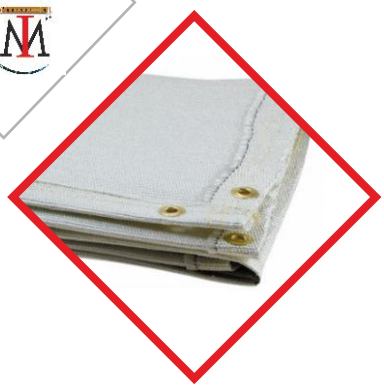
SILICON COATED FIRE SLEEVE (MI-385)

PRODUCT DESCRIPTION : MI-385 is a unique insulation product made by braiding "high silica" content yarn (treated E-glass Filament Yarn) in a flexible sleeve. This protective tube is then treated with high grade Silicone Elastomer, at high temperature, on the surface. The sleeve is designed to combine an advance three-tier formula of wear-resistant, flame-retardant & high temperature resistant properties to protect hoses, wires & cables from the hazards of high heat and occasional flame that occurs in industries. The sleeve is even resistant to hydraulic fluids, lubricating oils and fuels so that even accidental spillage doesn't affect the protected cable. The silicon sleeve also exhibits considerable electrical insulation properties. Our sleeve even insulates against energy loss in piping & hosing; protect the employees from burns; allows bundling of wires and cables; can withstand spatter for a brief period of time; and even gain time in case of emergency. The wall thickness of the Sleeve is sufficiently thick for satisfactory performance and increases with the increase in Inner Diameter of the Sleeve.

MI make Silicone Coated Fire Sleeves has much greater expansion and flexibility than other similar products available in the market.

Also Available : MI-385 Aero - Silicon Coated Fire Sleeve with superior Silicone Rubber Surface developed for Aeronautical applications.

SERVICE MEDIA & APPLICATIONS	It finds various uses in different industries such as Steel and Smelting, Shipping, Glass-Making, Hydrocarbons etc. It can be used as a perfect cover to protect Hydraulic Hoses, Pneumatic Lines, Wires & Cables. It acts as an excellent protective cover against both Thermal and Electrical insulation.
MAXIMUM TEMPERATURE	1650° C (for a brief period)
CONTINUOUS WORKING TEMP.	-70° C to +260° C
SILICA TUBE WORKING TEMP.	600° C
TENSILE STRENGTH	≥ 8.2 MPa
PARTING INTENSITY	>300%
VOLTAGE GRADE	7.9 kV/mm (at 20° C)
THERMAL SHOCK (at 300° C for 4 hours)	No crack is found
FLAME RESISTANCE	Outstanding
ABRASION RESISTANCE	Excellent
INSULATION CLASS	Nema Class H
STANDARD SIZES	Inner Diameter (ID) -6 mm to 100 mm ; Wall Thickness - 1.6 mm to 5.5 mm (Depends on ID of Sleeve)



PRODUCT DESCRIPTION : Non-Asbestos Welding Blankets/Fire Blankets are made from flame retardant composite fabrics & protect the equipment & welding area while welding. It provides protection from sparks, spatter & slang generated by welding or metal-cutting applications. All the four corners of the Blankets are diligently stitched with high-temperature retardant tape for safety purposes. The Brass Metal Grommets on each side of the Welding Blanket keep it secure & ensure full coverage with ease in handling. The Welding Blanket is also available in continuous length in roll form.

GLASS FIBER WELDING BLANKET WITH BRASS METAL GROMMETS	
PRODUCT DESCRIPTION	Manufactured from Fiberglass Fabric, the product is economical & is corrosion resistance. It is available with treatment of high temperature resistant laminates for special purposes.
TECHNICAL PARAMETERS	Maximum Temperature - 550° C

SILICA FIBER WELDING BLANKET WITH BRASS METAL GROMMETS	
PRODUCT DESCRIPTION	Manufactured from High Purity Silica Fiber Fabric, it exhibits high tensile strength & is extremely suitable for abrasive applications.
TECHNICAL PARAMETERS	Maximum Temperature - 1000° C

CERAMIC FIBER WELDING BLANKET WITH BRASS METAL GROMMETS	
PRODUCT DESCRIPTION	Manufactured from superior quality Ceramic Fiber Fabric, the product is suitable for high temperature applications. It is available with treatment of high temperature resistant laminates for specific purposes.
TECHNICAL PARAMETERS	Maximum Temperature - 1260° C

CARBON FIBER WELDING BLANKET WITH BRASS METAL GROMMETS	
PRODUCT DESCRIPTION	Manufactured from High Structural Carbon Fiber Fabric, the product is expensive but is inert to most of the chemicals & retains its high mechanical strength even at elevated temperatures.
TECHNICAL PARAMETERS	Maximum Temperature - 750° C

Manufactured By:

MANDELIA INSULATION AND TRANSMISSION CO.

Mandelia Insulation & Transmissions Co.
Mandelia Engineering Works
Hardware & Agency
Mandelia Brothers

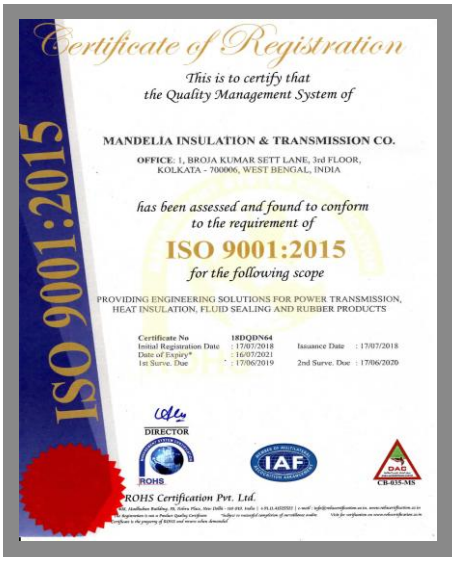
40, Netaji Subhas Road, Ground Floor
Opposite Century Plaza Building
Kolkata – 700001

RICCO Chowk, Unit - II, Way to Hill Top
Bhiwadi,Alwar Dist., Rajasthan

1, B.K. Seth Lane, Kolkata – 700006

info@mitcindia.com

+91 - 33 - 4001 2350


Certificate of Registration

This is to certify that the Quality Management System of

MANDELIA INSULATION & TRANSMISSION CO.

OFFICE: 1, BROJA KUMAR SETT LANE, 3rd FLOOR, KOLKATA - 700006, WEST BENGAL, INDIA

has been assessed and found to conform to the requirement of

ISO 9001:2015

for the following scope

PROVIDING ENGINEERING SOLUTIONS FOR POWER TRANSMISSION, HEAT INSULATION, FLUID SEALING AND RUBBER PRODUCTS

Certificate No 18DQD964
Initial Registration Date : 17/07/2018
Date of Expiry* : 16/07/2021
1st Surve. Due : 17/06/2019
Issuance Date : 17/07/2018
2nd Surve. Due : 17/06/2020

DIRECTOR

ROHS Certification Pvt. Ltd.

ISO 9001:2015

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