

Gland Packing



REX RI-9 PTFE fiber packing of 100% virgin fibers.

This gland packing is made from 100% virgin PTFE yarns. These are **Self Lubricating** yarns, no external Lubricant is Required. No Oil, no external Lubricant, no chance of burning. Ideal for **Oxygen services** and resistant to corrosive acids. This packing is designed to withstand all types of Chemicals under Severe conditions.

Service Conditions: Liquid oxygen pumps & valves, acids, Alkalis, solvents, dryers, chemicals, air compressors.

RI- 9	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	0-14	-225 to +275	350	0-20 m/s	1.4 to 1.6 g/cm ²	3 to 50



Rex RI – 45 Gore Type PTFE Graphite packing.

This is Braided from Gore Type PTFE graphite Fibers. This packing has a special blended lubricant which does not allow the packing to get hard thus minimizing shaft wear and gives longer life.

Service Conditions: Oils, hydrocarbons, solvents, acids, alkalis, detergents, distilleries, chemicals, dyes, intermediates, pesticides, marine application

RI- 45	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	3-12	-250 to +300	300	0-12 m/s	1.3 to 1.7 g/cm ²	3 to 50



Rex RI – 99 PTFE Graphite gland packing

This is Braided from PTFE GRAPHITE Fibers, it has self lubricating property which assists dissipation of heat which ensures negligible hardness, no friction resulting in minimal shaft wear.

Service Conditions: Oils, hydrocarbons, solvents, acids, alkalis, detergents, distilleries, chemicals, dyes, intermediates, pesticides.

RI- 99	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	0-14	-250 to +300	300	0-12 m/s	1.3 to 1.7 g/cm ²	3 to 50



Rex RI – 27 Pure Aramid fibre packing

This is braided from **Pure Aramid Fibers**. These fibers are extremely strong and smooth. These fibers are treated with special quality High temperature resistant lubricant.

Service Conditions: Solvent, acids, alkalis, oils, pharmaceuticals, gritty water, for sewerage application etc.

RI- 27	pH	Temp °C	Pr. Bar	Velocity	Density	Page 2
	2-143	-225 to +325	350	0-18 m/s	1.4 to 1.7 g/cm ²	3 to 50

Gland Packing

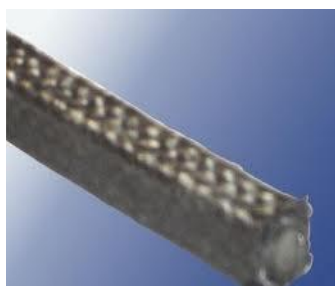
Rex RI – 10 PTFE fibre packing with synthetic Rflon Lubricant



This packing is manufactured using 100% virgin PTFE yarns Densely Impregnated with **Rflon PTFE** dispersion which Enables it to handle high pressures. The packing has non toxic and inert constituents which ensue safety & purity of the Medium

Service Conditions: Acid, alkalis, Gland areas where zero tolerance to contamination is required, dyes, paper, pulp, high Pressure valves.

RI- 10	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	0-14	-225 to +275	350	0-20 m/s	1.4 to 1.6 g/cm ²	3 to 50



Rex RI – 6003 Carbonaceous Aramid fiber Packing

This gland packing is made from combination of **Pure Aramid (Kelvar) fibers** with dense impregnation of Carbon .The high content of carbon ensures excellent heat dissipation and very low friction which results in minimum shaft wear. The base fiber (Aramid) provides high strength and stability. Designed for aggressive and abrasive slurry pumps.

Service Conditions: Hazardous and Abrasive media, Slag & slurry pumps, etc.

RI- 6003	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	3-12	-250 to +280	250	0-12 m/s	1.4 to 1.6 g/cm ²	3 to 50



Rex RI – 11 Synthetic PTFE fiber packing

This packing is manufactured using synthetic PTFE yarns, they are suited for Low pressure in Food and pharmaceutical Industry

Service Conditions: Clean water handing pumps & valves, Food, Chemicals and pharma industries.

RI- 11	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	0-14	-200 to +250	200	0-20 m/s	1.4 to 1.6 g/cm ²	3 to 50



Rex RI – 81 PTFE Aramid Packing

PTFE fiber packing of 100% virgin fibers.

This gland packing is made from combination of PTFE fiber at the faces and Pure Aramid at the corners. This design provides excellent dimensional stability and is recommended to use in Plunger pumps and pumps handling corrosive media. This is a non toxic, non contaminating packing.

Service Conditions: Liquid ammonia, carbonate, Urea, oxygen pumps & valves, acids, food industry.

RI- 81	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	2-12	-200 to +260	250	0-20 m/s	1.4 to 1.6 g/cm ²	3 to 50

Gland Packing



Rex RI – 63 Aramid + GFO® fibre Packing

PTFE fibre packing of 100% virgin fibres.

This gland packing is made from combination of **GFO®** fibre at the faces and Pure Aramid at the corners. This design provides excellent dimensional stability and abrasion resistance. Designed for high pressure, high speeds having excellent resistance to abrasive media **Service Conditions:** Hazardous and Abrasive media, dewatering pumps, fine slurry pumps, etc.

RI- 63	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	2-12	-250 to +280	500	0-20 m/s	1.4 to 1.6 g/cm ²	3 to 50



Rex RI – 18 Flexible Graphite Packing

This is braided from **Flexiblee Graphite fibers**. This packing is non-corrosive, self lubricating and gives frictionless sealing providing good life to the packing and Sleeve.

Service Conditions: Acids, Alkalis, Oils, recommended for High Pressure Steam applications. Not suitable for Nitric acid.

* RI- 181 will have Inconel wire reinforced.

RI- 18	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	2-14	-200 to +600	300	0-15 m/s	0.9 to 1.3 g/cm ²	3 to 50



Rex RI – 612 Pure carbon with Graphite Packing

This gland packing is made from combination of **Pure Carbon Fibers and Flexible Graphite yarns** with Carbon fibers at the Corners and flexible graphite yarns at the core and face of the gland packing. This combination provides excellent flexibility and Compressibility. This packing is designed for High Temperatures, chemicals and for valve applications.

RI- 612	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	0-14	-200 to +600	350	0-20 m/s	1.4 to 1.6 g/cm ²	3 to 50



Rex RI – 650 (Ultra Pure Graphite fiber Packing)

A 100% Pure graphite packing designed for extreme applications of High Temperatures and aggressive media. Manufactured using a premium grade of 100% high graphite Fibers treated with high temperature lubricant. This design Ensures excellent heat conductivity, low friction, high Temperature resistance resulting in Lower shaft wear.

Service Conditions: Acids, Alkalis, oil, solvents, steam, Thermic fluid pumps, hot tar pumps, refinery services, etc.

RI- 650	pH	Temp °C	Pr. Bar	Velocity	Density	Size mm
	0-14	-250 to +650	350	0-12 m/s	1.4 to 1.6 g/cm ²	3 to 50

Non Asbestos Jointing Sheets

We are one of the leading manufacturers of compressed Non-Asbestos Jointing Sheet which fills the space between two or more matting surfaces, generally to prevent leakage from or into the joint objects while under compression.

Rex Jointing sheets conforms the property requirements of international standards & has many desirable properties to withstand high compressive loads. It comes in many different design based on industrial usage, budget, chemical contact & physical parameters.

We produce different types of jointing sheet for High / Medium / Low – Pressure / Temperature & Acidic environments.*

Standard thickness:

0.4; 0.5; 0.8; 1.0; 1.5; 2.0; 3.0; 4.0; 5.0 mm

Standard sheet size: 1.5 x 1.0 m, 1.5 x 2.0m
1.5 x 3.0m and 1.5 x 4.0m

We also make custom sheets as per Client Specification

With wire insertion

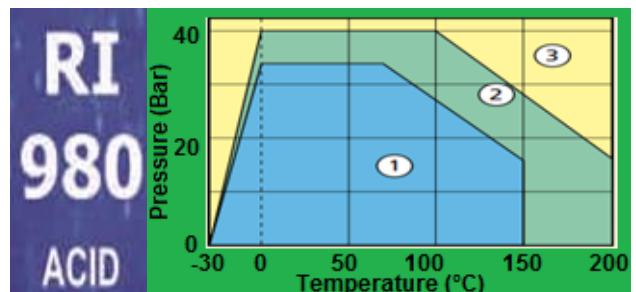
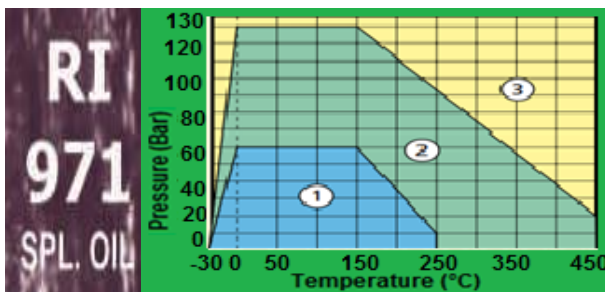
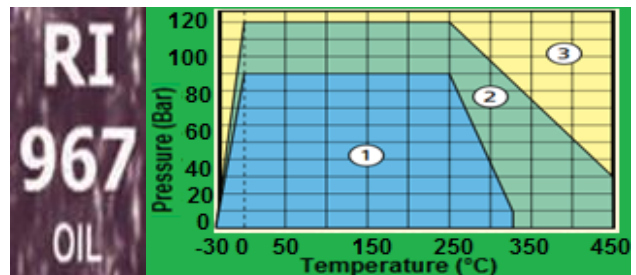
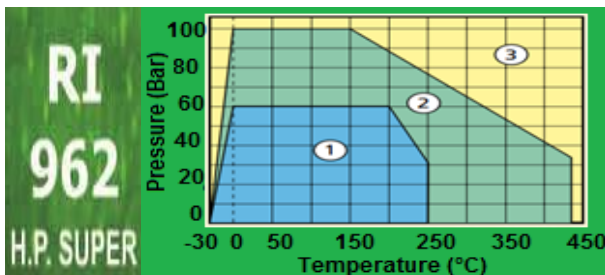
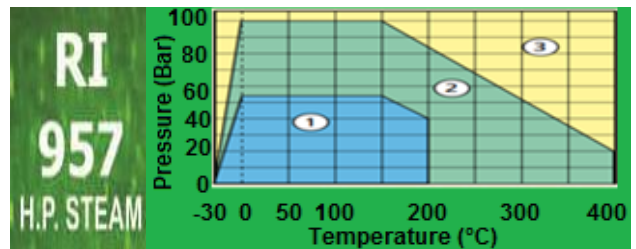
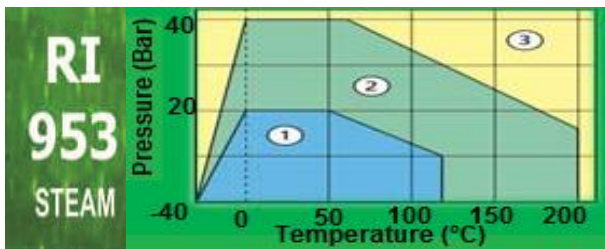
0.8; 1.0; 1.5; 2.0; 3.0; 4.0; 5.0 mm

Thickness tolerances:

0,4– 0,8 ± 0,1 mm

1,0– 5,0 ± 10 %

Pressure Vs Temperature Graph



- 1 – Suitable area (even for steam application)
- 2 – Suitable extended area, technical advice is recommended
- 3 – For this area technical consultation is mandatory

ISO 9001 & 14001

Rex Sealing & Packing Industries Pvt Ltd

Plot No. M-44, M.I.D.C Ind. Area, Taloja, Maharashtra, India.

Tel: +91-9930626228, email: kunal.shah@rexseal.com

Major Characteristics for Compressed Non- Asbestos Fibre Jointing Sheet

Material	Density G/CC	Tensile Strength as per ASTM F152 in MPA	Residual Stress as per BS 7531 in MPA	Gas permeability as per BS7531 in CC/MIN	Compressibility as per ASTM F36 in %	Recovery as per ASTM F36 in %	Fluid Resistance				Ignition Loss	Maximum operating pressure in BAR	Temperature Rating	Service Features
							ASTM Oil No 3		Fuel B					
							Thickness Increase in %	Mass increase in %	Thickness Increase in %	Mass increase in %				
RI 953 STEAM	1.9	12	18	<1.0	8-11	≥35	≤10	≤15	≤15	≤15	≤25	35	Max. Short term service temp.: 400°C Max. Continuous service temp.: 250°C Max. Operation temp, for steam : 180°C	Suitable for use with Glasses, Water, Low Pressure Steam & Dilute Acids & Alkalies.
RI 957 H.P. STEAM	2.0	13	22	<1.0	7-11	≥40	≤10	≤15	≤10	≤15	≤30	80	Max. Short term service temp.: 400°C Max. Continuous service temp.: 250°C Max. Operation temp, for steam : 180°C	For wide range of Industrial Applications For wide range of Industrial Applications Recommended for Medium Pressure Steam, Gases, Water & Dilute Chemicals
RI 962 H.P. SUPER	1.8	15	25	<0.1	7-11	≥45	≤8	≤10	≤8	≤10	≤35	150	Max. Short term service temp.: 400°C Max. Continuous service temp.: 250°C Max. Operation temp, for steam : 250°C	For use with Oil, Solvents, Gases, Steam, Acid & Alkalies. 1. Excellent Tensile Strength 2. Outstanding Gas Sealability 3. High Resistance to creep under elevated temp. & Pressures.
RI 967 OIL	1.9	14	22	<0.5	8-12	≥40	≤10	≤10	≤8	≤10	≤35	80	Max. Short term service temp.: 450°C Max. Continuous service temp.: 250°C Max. Operation temp, for steam : 250°C	General Purpose for Oils, Solvents, Water, Steam, Gases, Dilute Acids & Alkalies, Glycols & Aqueous Solutions
RI 971 SPL. OIL	1.7	15	25	<0.1	7-11	≥45	≤8	≤10	≤8	≤10	≤40	150	Max. Short term service temp.: 450°C Max. Continuous service temp.: 250°C Max. Operation temp, for steam : 250°C	General Purpose for Oils, Solvents, Water, Steam, Gases, Dilute Acids & Alkalies, Glycols & Aqueous Solutions
RI 980 ACID	1.75	13	25	<0.1	8-12	≥40	≤8	≤10	≤8	≤10	≤40	150	Max. Short term service temp.: 250°C Max. Continuous service temp.: 210°C Max. Operation temp, for steam : 210°C	Acid Resistance Grade. Recommended for use against Hot Concentrated Organic, Inorganic & Mineral Acids.

Composition : Aramid fibres bonded with NBR rubber

All of the above are available with Gauze Wire Insertion - Except for RI- 980 Acid

All of the above are also Available with Anti-Stick Coating or Graphite Coating.

ISO 9001 & 14001
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Fabric Expansion Joints

Another expertise of REX is to manufacture Fabric Expansion joints (bellows) of virtually **any size & shape**, from a range of proven standard constructions or designed especially for defined application.

It is essential that all the relevant parameters and conditions affecting Expansion Joints are taken into account.

REX has three basic types of Multi-Layer construction to meet the various needs of our customers

Type L for clean air systems: ranging from simple air intake/exhaust on fans and blowers to high temperature air discharge from heaters.

Type M for gas with low acid content: used on Gas Turbine Exhaust and less severe flue gas systems.

Type R for gas with high acid content: for use in environments where the flue gas contains acids at temperature or acids that can form due to condensation at shut down.

Acid barriers are either PTFE impregnated glass cloth or PTFE foil thermally welded to ensure tight seal.

Multi-layer fabric temperature range is from -50°C and 1090°C with a standard pressure range of $\pm 120''$ W.G

An important difference in the REX Multi-Layer Fabric is that we do not rely on an insulation pillow to reduce the temperature in contact with the element.

The Multi-Layer Fabric is always designed to withstand the temperature regardless of secondary insulation pillow.

Many competitive designs rely on this insulation pillow for primary protection of their element with disastrous results after several temperature cycles.

Distinct Advantages

- ✓ Accommodate relatively large movements and even some misalignment of flanges.
- ✓ Light weight & easy to install and with the addition of
- ✓ Internal insulation bolsters have good acoustic properties.

Fabric expansion joints can be supplied fully assembled and fitted to support steelwork ready for insertion into ductwork.

For retrofit applications, we can supply as factory joined or open for on-site joining where access is limited.

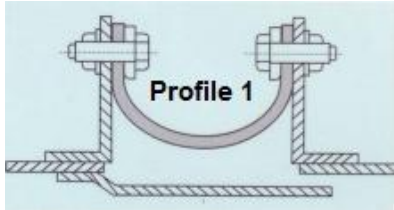


Fabric Expansion Joints

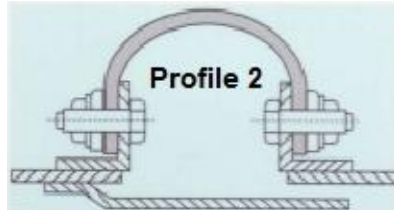
Design of Multi Layer Elements

The design is based on the fabric element's ability to withstand the media temperature.

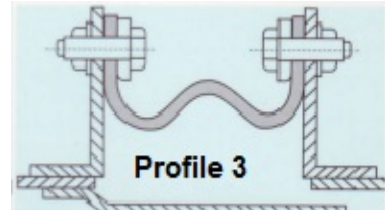
Multi-layer fabrics are offered in three basic styles: Clamp-on, Belt-Type and Flange Type. The five basic style numbers shown below meet all positive and negative pressure applications.



Suitable only for applications operating under negative pressure. But will accommodate relatively large movements.



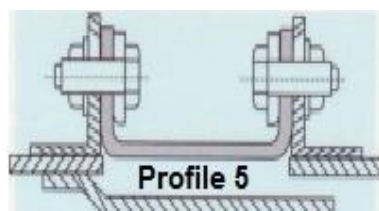
Suitable only for applications operating under positive pressure. But will accommodate relatively large movements.



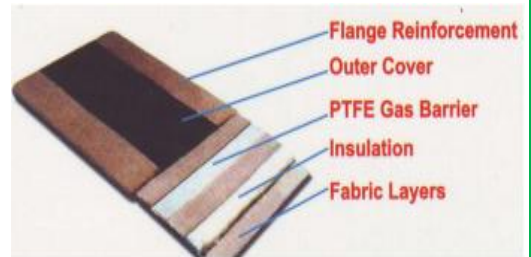
Used when flange depth is limited and is suitable only for applications operating under positive pressure.



Suitable for both +ve & -ve pressures. If used with a suitable insulation bolster, will provide resistance to highest temperatures

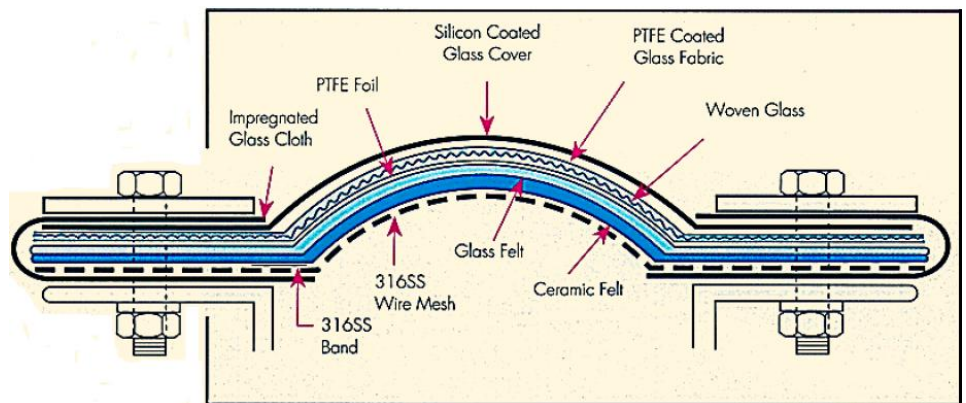


Suitable for operating under both positive and negative pressures. Mostly for applications with small flanges and little movement



Temp. capabilities range from -50° C - +1260 °C and pressure range from -50kPa to +50kPa.

The sectional view of a standard Expansion Joint engineered approach to Multi-Layer Fabrics.



Insulation Jackets - Reusable

REX custom made insulation jackets are designed to insulate wide variety of equipment including valves, flanges, calorifiers, strainers, separators, actuators, heat exchangers, elbow bends, etc helping to deliver up to 97% energy conservation, and provide exceptional Thermal Conductivity properties.. They are also commonly used to provide insulation against low temperatures and protect personnel from burns by reducing the temperature of the exposed pipework surfaces.

Additionally, end users enjoy an attractive return on their Insulation system investment based solely on energy savings. The payback period accelerates as equipment size and operating temperature increases.

Key Benefits

- **45% reduction in energy costs.**
- **25% reduction in heater watt density.**
- **40% Faster Start up time**
 - Removable / Reusable
 - Optimal Thermal Efficiency
 - Tool- Free installation
 - Rapid Payback Period
 - Precise Form- Fit Design
 - CAD CAM Technology
 - Exceptional Service life
 - Standard / Specification Conformance



Typical Applications

- Exchangers
- Exhaust Manifolds
- Flanges
- Filters
- Instruments
- Piping
- Pumps
- Turbines
- Valves

Typical Requirements

- Energy Conservation
- Personnel Protection
- Process Stability
- Leak Detection
- Freeze Protection
- Fire Protection
- Acoustical Abatement
- Corrosion Protection
- Simplified Maintenance

Construction of Rex Insulation Jackets

Rex insulation Jacket has self-contained insulation system, constructed with a high density insulation filler with a fully encapsulated outer jacketing. The outer jacketing is double sewn and binded at the closing seams. The jacketing and sewn construction ensure long lasting protection to the insulation filler.

Silica Tapes

Silica tape constructed from 96% pure SiO₂ silica fiber



A low cost, convenient, field-installable solution to some of the most demanding high temperature problems.

REX Silica Tape is a slit silica tape constructed from 96% pure SiO₂ silica fiber, coated one side with a pressure sensitive adhesive backing that facilitates installation. The adhesive decomposes at high temperatures, leaving a perfectly tape-wrapped hose, cable or pipe. and also provides energy savings and personnel protection

Suitable for use at 1800°F (982°C), and able to withstand short term exposure up to 3000°F (1650°C), REX Silica Tape sets the standard for flexibility and minimum lineal shrinkage under high heat conditions.

PHYSICAL PROPERTIES	
Continuous operating temp:	1800°F (982°C)
Max short term exposure:	3000°F (1650°C)
Molten splash resistance:	Good
Flame resistance:	Outstanding
Abrasion resistance:	Moderate
Flexibility:	Outstanding
Tensile strength:	Good

WELDING BLANKET



This high temperature, heat and flame resistant thermal insulating welding Blanket will withstand temperatures of 1500°F / 815°C continuous exposure and is capable of withstanding temperatures of 2000°F / 1093°C for short periods.

The base High Temperature fiberglass fabric is fabricated from high quality type E fiberglass that will not burn. The fabric is then coated with a heat treated dispersant.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

Applications:

Common application include welding spark protection blankets/ curtains, plumbers pads, fire protection, insulation mattress/jacket cover material, high temperature fabric seals.

1500°F / 815°C: Welding Blanket For Molten Melt & Welding Splatter			
Thickness (mm)	Width (mm)	Length (m/roll)	Base fabric weight (g/m ²)
0.75	1000	50	610
1.4	1000	50	1080
2	1000	50	1400
3	1000	50	1900
1.3	1000	50	1000

Fire Sleeve / Pyro jacket



High Grade Silicone Rubber Bonded to Fiberglass Sleeve

REX Silicone Sleeve & Tape is designed to protect hoses, wires and cables from the hazards of high heat and occasional flame. It protects continuously to 260 °C / 500 °F and will withstand a molten splash at 1200 °C / 2200 °F. Made of knitted fiberglass yarns in a flexible substrate, it is then coated with a high grade silicone rubber.

Resistant to hydraulic fluids, lubricating oils and fuels, REX Silicon Sleeve & Tape insulates against energy loss in piping and hosing, protects employees from burns and allows “bundling” of wires, hoses and cables.

The Braided version allows qualified hose assemblies to pass AS1055D testing under stated flow and pressure conditions.

Available Sizes (ID): 1/4" (6mm) through 5" (127mm)

PHYSICAL PROPERTIES

Fiberglass Type E		Silicone Rubber	
Breaking Tenacity	1.71 gf/TEX Std and Wet	Durometer, Shore A	Initial 35
Tensile Strength	450,000 - 500,000 psi		Aged 240hrs @ 200°C 45
Breaking Elongation	4.81% Std and Wet	Tensile Strength	Initial 875
Elastic Recovery	100%		Aged 240hrs @ 200°C 800
Average Stiffness	2824.3 cn/TEX	Elongation %	Initial 500
Effect of Heat	Will not burn Retains 75% tensile at 343°C Softens at 732 -877 °C Melts at 1121 - 1182 °C		Aged 240hrs @ 200°C 200
		Flammability, UL94	V-1
		Dielectric Strength (Volts/mil)	485
Effects of Acids and Alkalis	Resistance to acids is fair Good resistance to most alkalis		