Rane

ELASTOMER PROCESSORS

AN ISO 9001 - 2008 Company

Responsive

Reliable

Reasonable

COMPANY PROFILE

RANE ELASTOMER PROCESSORS : Established 35 years ago to manufacturer Precision Industrial Rubber Products using Extrusion and Moulding Process. The company letter on diversified into manufacturing of engineering rubber products like:

- **DOCK FENDERS**
- **SILICONE RUBBER SLEEVING**
- **TRANSPERENT TUBINGS FOR MEDICAL & PHARMA INDUSTRIES**
- **RUBBER SHEETS**
- **RUBBER PROFILES**
- **GASKETS**
- **DIAPHRAGMS**
- **RUBBER PADS**
- **ARCHITECHURAL PROTECTIVE RUBBER GUARDS**
- **SPEED BREAKERS ETC..**

MEMBER

AIRIA · IRMRA · CAPEXIL (Sponsored by Ministry of Commerce & Industry, Govt. of India) · NSIC CERTIFIED CO.

QUALITY POLICY

- All products are manufactured as per customer's requirements / specifications.
- Internal Quality Control is followed during manufacturing process.
- Guarantees high standards & performances.
- Assures strict control on Procurement, Production, Calibration, Testing.
- Inspection by departments and agencies like I.R.S., S.G.S., Bureau Veritas, Lloyds Register etc. is don and when required by customer.

EXPORTS TO EUROPEAN, AMERICAN, AFRICAN, ASIAN COUNTRIES...

PRODUCT RANGE

SPECIALITY PRODUCTS

- High Voltage High Temp. Resistant Silicone Sleevings
- Medical & Food Grade SILICONE TUBINGS
- DOCK FENDERS

OTHER PRODUCT MANUFACTURED

- Moulded & Calendared Sheets, Sponge
- Sheets & Electrical Insulation Sheets
- Shock Vibration, Engine MOUNTINGS & ANTI Vibration Pad

MOULDED ITEMS:

- Oil Seals "O" Rings, Packing, Diaphragm and Silent Block • Bushings, U Seals • V Seals • Chevron Packing etc.

EXTRUDED RUBBER PRODUCTS:

• Dam gate seals • Cords • FBD Gaskets • Squares • Profiles • Channel • Beadings etc.

NEW INTRODUCTION

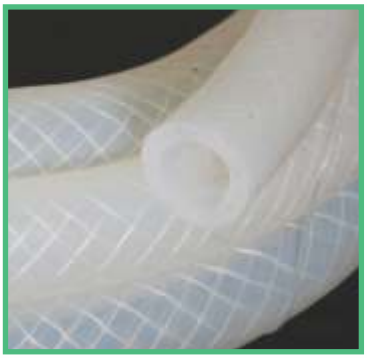
- Architectural Protective Rubber Guards
- Construction Profile / Beading from EPDM / Neoprene / Silicone Rubber
- Speed Breakers

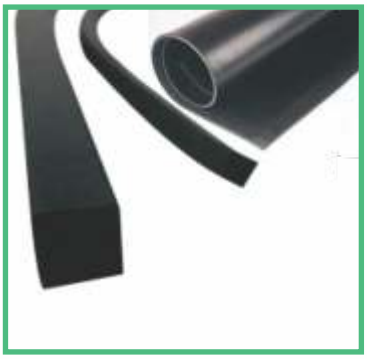
RUBBER PROCESSED BY US

- Natural / Ebonite
- Neoprene
- Nitrile
- EPDM
- Hypalon
- Butyl
- Polyurethane
- Silicone
- Viton
- SBR / PBR

FACILITIES:

- 1 Kneader
- 3 Mixing Mills
- 9 Extruders
- 5 HAV & 2 Boilers
- 5 Vulcanisers
- 3 Hydraulic Press Battery of Hand press Calender, Industrial Oven, Toolroom Facilities
- IN HOUSE TESTING FACILITIES





OUR PRODUCTS ARE TESTED AND INSPECTED BY INTERNATIONALLY REPUTED INSPECTION AGENICES, AS AND WHEN REQUIRED.

PRODUCT APPLICATION

PRODUCTS	APPLICATIONS
SHEETS MOULDED & CALENDERED SHEETS AND Sponge Sheet, Electrical insulation	Used as car mats, insulation, dust, sealing, Packing, Gasketing in Automobile, Laboratory, Hospitals, Airports, and Power Plants, Electricity Board.
MOUNTINGS & PADS Anti Vibration, Shock Vibration pad & Engine MOUNTINGS	Used in all engines in Automobiles, Marine, Generator, Diesel engines to absorb the shock & vibration & also used by Power plants Railway Heavy Eng. Units
SILICONE SLEVINGS High Voltage, High Temp. Resistant SILICONE SLEEVINGS	Used for insulation purpose in Electronic & Refrigeration industries. Used in Carona Treatment Plant also.
SILICONE TUBES Medical & Food grade SILICONE TUBINGS	Used in disposable & Pharmaceutical Industries. also used in cardiovascular Surgery.
DOCK FENDERS Hollow, Cylindrical, Square, Rectangular, D Shape, V / W Shaped, Cell type, Cone type etc.	Used on berth, jetties, oil rigs, ferry boats & also on ships by ship builders, Ship repairersby ports, dockyards to absorbs the shock and to prevent damage to Jetty as well as ships.
MISCELLANEOUS INDUSTRIAL PRODUCTS Oil seals, 0 Rings, Chevron Packing, Gaskets Profiles, Beadings, Square sections, Aluminum Silicone Rubber Bonded Sheet.	Used by all industries to resist heat, cold oil, grease, chemicals leakages etc. & for specific applications. Used for Hot Die stamping.
DIAPHRAGMS	Used in Pumps. Valves - Control Valves Diaphragm Valves etc - Actuators etc

OUR LATEST PRODUCTS:

PROTECTIVE RUBBER GUARDS	Used as Impact protection to columns, loading bays, Parking Lots.
SPEED BREAKERS	For reducing Vehicle Speed.
CONSTRUCTION PROFILE / BEEDING FROM EPDM / NEOPRENE / SILICONE RUBBER	To be used for fixing glasses in aluminum sliding windows.

TECHNICAL INFORMATION: SILICONE RUBBER



FEATURES:

SILICONE rubber retains its physical organic elastomers particularly when subjected to extremely low or high temperatures. It solves design problems that demand elastomers to stay rubber after long exposures of high temperatures. And low temperature properties need not be sacrificed to get maximum heat resistance even the most heat resistant types do not show marked stiffening at temperatures as low as -50 C.

Briefly, the mechanical characteristic of Silicone rubber includes :

- Good tensile strength at elevated temperatures i n comparision to organic rubber Silicone rubber retains a much greater percentage of its room temperature tensile strength at high temperatures.
- Good elongation characteristics, ultimate value range to 700 percent.
- Wide range of hardness 15 to 80 durometer; the designer is free to select a desired hardness that best fits a specific function.
- Good tear strength - up to 250 ppi and resistance to tear propagation.
- Excellent resistance to compression set at elevated temperatures upto 200 C.
- Good resilience - quick recovery after deflection.

Electrically, long term ageing at high temperatures produces only minimal change in properties. Dielectric stability is relatively unaffected by frequent or extreme temperature fluctuations. Because silicone rubber retains its physical integrity in environmental extremes, electrical failures due to cracked insulation are sharply reduced. When exposed to intense flame, silicone rubber remains non conducive and does not carbonize.

Under environmental extremes rubber is unmatched in performance when subjected to weathering, ozone and corona, attack by many oils, chemicals and fungi, low pressure steam, water and radiation exposure.

TYPICAL APPLICATION:

Components made from SILICONE and FLURO SILICONE rubber are used in almost every major industry. Areas of greatest use are aircraft, missiles, automobiles, appliances, electrical machinery, electronic assemblies, spark plug boot, Medical, Pharma & Food Industries.

- As SILICONE rubber has high dielectric strength and physical toughness, cable connectors, plugs and terminal covers made from silicone rubber are more reliable than from any other rubber.
- Hybrid SILICONE connectors are used in critical electronics equipment.
- SILICONE rubber seals, gaskets and 'O' Ring s have excellent resistances to compression set and seldom need replace ment e.g. a silicone rubber gasket on a hospital autoclave was finally replaced after exposure to 20 psi steam 5 to 6 hours a day for more than 6 years. Organic rubber gasket lasted only 3 to 4 months.
- Front and rear crank shaft seals made from silicone rubber have been in service for more than 1,50,000 miles on one manufacture's small V-8 service engine for light and medium duty trucks.
- A patented double lip seal of high performance silicone rubber reduces maintenance and helps insure upto 4,00,000 miles of service life on truck brake actuators.
- SILICONE rubber radiator and heater hose last 3,00,000 miles in diesel buses and trucks. The hose remains fault free in an environment that causes non silicone hose to break or leak chemicals in the anti freeze, heated air, exhaust gases, wide temperature variations, dust and dirt.
- In baking plant & food handling equipment, SILICONE rubber suction cups improved handling of all types and shapes of bread and rolls. The cups are bellow shaped for utmost flexibility. Neoprene rubber cups of required flexibility were not sufficiently, resistant to cooking oil and abrasion. Nitrile rubber stiffened with heat aging and repeated exposures to detergents.

TECHNICAL INFORMATION: VITON RUBBER




FEATURES:

RESISTANCETOOIL, GREASE, CHEMICALS:

VITON has the best proven fluid resistance characteristics of any commercial rubber, It has excellent resistance to oils, fuels, lubricants, most mineral acids, and resists many aliphatic and aromatic hydrocarbons that act as solvents for other rubbers. Some of these are carbon tetrachloride, toluene, benzene and xylene.

VITON is not recommended for service in low molecular weight esters and ethers, ketones, certain amines, hot anhydrous hydrofluoric or chlorousulfonic acids.

VITON withstands high temperature and simultaneously retains its good mechanical properties better than any other elastomer. Oil and chemical resistance also are relatively unaffected by elevated temperatures, Compounds of VITON remain usefully elastic indefinitely when exposed to laboratory air oven aging up to 400°F, or to intermittent test exposures up to 500°F, Continuous service limits are generally considered to be.

3000 hours at 450°F, 1000 hours at 500°F, 240 hours at 550°F, 48 hours at 600°F.

For Fleeting Exposures to 1000 Plus °F where a rubber part must perform a function and then is destroyed. VITON often can provide the necessary temporary protection.

Cold: VITON is generally serviceable in dynamic applications down from zero to -10°F, although special formulations permit its use In dynamic application down to -65°F. Also VITON has proven satisfactory for static seals used under cryogenic condition approaching absolute zero.

FLAMERESISTANCE:

VITON will not propagate flame, it burns in the presence of flame but extinguishes itself when the flame is removed.

RESISTANCETOMECHANICALABUSE:

Considering their exceptional heat and fluid resis'tance, finished products made from VITON offer unusually good mechanical properties and are tough and long wearing.

RESISTANCE TO OTHER ENVIRONMENTAL FACTORS

The biological resistance of Viton is excellent. A typical compound tested against specification MIL-E-5272C showed no fungus growth after 30 days. This specification covers four common group of fungi.

Standard componds of VITON do not have good resistance to steam above 300°F, or to extreme hot water. Hot water or 100% humidity conditions at 100°F, also have some adverse effect on the heat compression set resistance of products made of VITON.

VITON ranks about midway among commonly available elastomers with respect to gamma radiation resistance. However, since high temperature is frequently involved simultaneously with exposure to radiation the practical effectiveness of VITON correspondingly increases.

Under extreme vaccum conditions VITON exhibits a weight loss of only 2-3%, including that is virtually completely immune to out gassing.

RECOVERYFROMDEFORMATION:

The exceptionally good compression set was shown by a typical compound of VITON after test compression for various periods of time at 300°F, and 400°F. These become more meaningful when it is realized that most rubbers have a service temperature ceiling less than 250°F.

ELECTRICALPROPERTIES:

The electrical properties of VITON suggest its use as a wire insulation for low voltage; low frequency applications requiring unusual heat and fluid resistance. It normally has a D. C. resistivity on the order of $2x10^{13}$ ohm/cm, a specific inductive capacity around 15, a power factor of about 5 % and a dielectric strength 500 volts per mil.

APPLICATIONS:

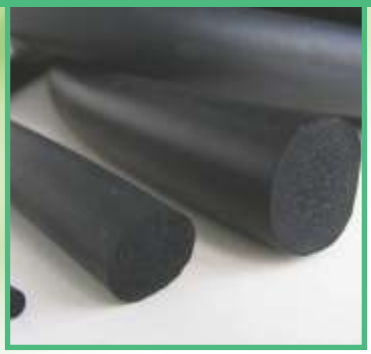
The remarkable resistance of VITON to heat and fluids has improved performance of components for appliances, cars, trucks, aircraft and many types of industrial equipment. It offers industry such products as gaskets, 'O' rings, seals, diaphragms, cable jacketing, coated fabrics hose, tubing, plus a great variety of special parts that will perform over an unusually wide range of operating conditions.

Piston-type as well as jet engines employ VITON for resistance to heat, lubricants and fuels. Seals of VITON are now standard on major airlines. Similar seals are also used for heavy-duty automotive applications and in missile and space technology.

More than hundred rubber parts used in a coin operated drycleaner, are made of VITON for

TECHNICAL INFORMATION: EPDM RUBBER






Cold - Conventional compounds of EPDM are flexible and serviceable at temperatures as low as - 60°F. Special compounds can function down to - 90°F

Weather Resistance:
Sunlight and weather have little adverse effect on properly compounded products of EPDM. Samples exposed for more than ten years in Florida are free from surface blemishes and display excellent retentions of physical properties. Acclerated aging test show that EPDM will match performance of the most weather resistant speciality elastomer.

Ozone Resistance:
For all practical purposes, EPDM can be considered immune to ozone. For example, SBR wire at top of mandrel, was exposed to 10,000 pphm ozone for only 1.1/2 hours before becoming badly cracked and split Wire Jacket of EPDM had been exposed to same concentration for 167 hours with no effect.

Colorability:
EPDM can be compounded in any colour, including white and delicate pastel shades, coloured products made from EPDM are highly resistant to discolouration and fading when exposed out-of-doors.

Electrical Properties:
EPDM has excellent electrical properties and is suitable for high voltage cable insulation. It also withstands heavy corona discharge without sustaining damage.

Resistance to Chemicals:
Products made from EPDM resist attack by many acids and alkalies, detergents, phosphate esters, ketones, alcohols and glycols. They give particularly outstanding service. with hot water and high pressure steam. However, EPDM should not be used in contact with hydrocarbons solvents and oils, chlorinated hydrocarbons or turpentine.

Resistance to Other Environmental Factors:
EPDM is not adversely affected by direct burial in earth, Immersion tests also show a very low degree of water absorption.

Recovery From Deformation:
After being held under compression for an extended period of time, EPDM shows a low degree of permanent deformation. Samples tested perASTMD395 Method B normally give set values in the range of 10 to 25% By selective compounding, however, compositions can be produced with compression sets of only 8% all 58 F12% at 212 F and 26% at 350 F

Resistance to Mechanical Abuse:
Products of EPDM possess good tear resistance, even at elevated temperatures and prove very durable when exposed to abrasion and other forms of mechanical abuse. Their resilience is between that of products made from SBR and those of natural rubber.

APPLICATIONS:
EPDM is widely used in automative and appliance components, garden and industrial hose, belts, wire and cable Insulation electrical accessories, bicycle tyres, and a variety of other moulded and extruded parts for marine agricultural, industrial and consumer applications.

The range of automotive uses for EPDM is extensive. Pertinants are its immunity to ozone. All major U. S. automakers have specifieds some parts ofEPDM in their passenger cars.

Hose, belts, diaphragms, gaskets and other industrial rubber goods made of EPDM give excellent service with high pressure steam, hot water and chemicals.

Good electrical and physical properties of EPDM suit it for use high voltage accessories for cable and power equipment.

TECHNICAL INFORMATION: EXTRUDED RUBBER SLEEVINGS

INTRODUCTION :

EXTRUDED RUBBER SLEEVINGS ARE USED IN ELECTRICAL / ELECTRONIC INDUSTRIES FOR INSULATION / COVERING / SHEAT / CONDUIT / ARMOUR OF LEADS / CORDS / CABLES / CONDUCTORS. IDEAL FOR USE AS INSULATION ON WIRE FOR FIXTURES & APPLIANCES WIRE INSULATION.

We have indigenously developed rubber sleeving from Silicone, Neoprene and Nitrile PVC, Viton Rubber similar to HELLARAMANN HELSYN type for various critical applications.

MATERIAL:

The Sleevings are made from Silicone Rubber / Neopreneo Nitrile PVC, Viton as per applications. The properties of Neoprene Sleeving are as follows:

- Good Mechanical Properties Temp. Range long term 5°Cto 95°C
- Resistance to abrasion: Max. Intermittent. 105°C
- Moderate resistance to oil • Good Resistance to weathering
- Minimum Insulation resistance Megaohmes:
  Dry 3 x 103 Damp 0.5x10' • Self Extinguishing

The properties of Nitrile Pvc Sleevings are as follows

- Good Mechanical properties
  Temp range long term: 60°C to 105°C
- Excellent resistance to mineral & vegetable oil.
- Resist Solvents • Max. Intermittent temp :120°C
- Minimum insulation resistance megaohmes:
  Dry 1x10' Damp 25 x 102 Excellent Ozone Resistance.

SILICONE SLEEVINGS:

Silicone Sleevings are of three grades:

• Electrical Grade • Medical Grade • Food Processing Grade.

SILICONE SLEEVINGS FOR ELECTRICAL INSULATION

SILICONE SLEEVING has inherent dielectric strength allied with resistance to high temperatures, high voltage ionisation, arcing, ultra violet light and ozone plus carona resistance comparable with that of Mica, make it dependable in the most rigorous electrical applications including moisture laden conditions. It will continue to insulate even in severe vibratory conditions, after reduction to silicone dioxide ash by direct flame contact.

The Silicone sleevings are manufactured in Transparent or Opaque versions. They are available in any diameter and wall thickness, any length &any colour.

MANUFACTURING SLEEVING AS SMALL AS 0.20 MM WALL THICKNESS IS RANE'S FORTE.

The Sleeving are subject to strictest quality control procedure right from the stage of raw material, formulation, compounding & mixing to extruding finishing and physical measurement. They are rigorously tested to the most punishing requirements subject to ardorous duties as per standard B. S 2848 Type 5 & B. S G.I 98 Type 4 When carefully compounded and extruded, it gives following excellent properties.

(A) RESISTANCE to steam ageing, power factor, Permittvity, Electrolytic Corrossion. Smooth, Free from bubbles, pinholes and creases in appearance. Low space factor, long life, no cracking after bending, withstand 48 hours at 180OC without cracking Withstand Low temp up to -65OC without cracking and elongation 240% to 280% observed for 1.00 mm dia & 330% to 360% for 12 mm diaRate of burning satisfactory. Volatile content-satisfactory.

(B) MOULD GROWTH : No mould growth visible to eyesight.

(C) VOLTAGE PROOFING : At room temp, in air for 1mm dia with stand 7 KV RMS for 1 minute (At 180OC 1mm dia withstands 4.9 KV RMS for 1 minute) At room temp. in air for 12mm dia withstands 10 KVRMSfor 1 minute (At 180OC for 12mmdia withstands 7 KVRMS for 1 minute)

(D) INSULATION RESISTANCE : Electrical Insulation 500 volts are insulated by a thickness of 1 mill. At room temperature. 1mm dia sleeving : 50x10 6 to 200x106 Megaohms, 12mm dia 5x106 to 50x106 Megaohms

After accelerated damp heat treatment :
1mmdia 5x106 to 50x106 Megaohms.
12mmdia 2x106 to 5x106 Megaohms.

5/64" insulation on 20, gauge wire hot air vulcanised insulation resistance: 20,000 ohms per 1000 feet, After 24 hours Immersion 10,000 ohms per 1000 feet, Electric Strength: 18 KVAC.

MEDICALGRADESLEEVINGS

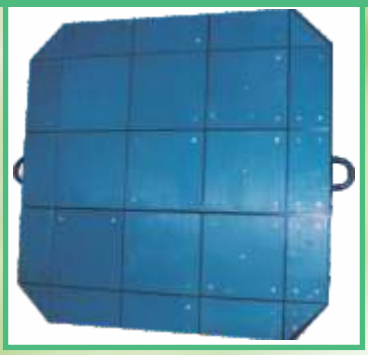
SLEEVING & TUBING:- Manufactured under approved clean room conditions, Ranelast silicone sleevings are non-toxic and completely without physiological side-effects making it ideal for stringent medical requirement, Its dimensional accuracy gives precise metering and its translucent formation allows the flow to be observed.

Rubber pumps in renal core and major cardiovascular surgery produced under special clean room conditions. Higher degree of translucence & freedom from descotouration enable the fluid content to be seen more clearly.

SILICONE SLEEVINGS FOR FOODPROCESSING

Silicone sleevings do not transfer any taste of smell to food mixture, neither do they absorb water or constituent liquids. Its smooth surface gives a low coefficient of friction enhancing flow characteristics and simplifying cleaning since even at sterilising temperatures upto 200OC. non stick property is maintained. It easily complies with the strict hygiene requirements of the food processing industry.

DOCK FENDERS











Rane Elastomer Processors is the leading Indian manufacturer of rubber fenders for shipping industry , port sector and a variety of industries. With over 40 years of experience, the company has moved up to manufacturing of all types of dock fenders namely , like Hollow Cylindrical, Square Rectangular, 'D' Shaped, V/W Shaped, Arch, M, Cell Type, Cone Type, Leg Type, Key Hole Type, Wing Type, Pneumatic Fenders etc

The above fenders are ideal for use Oil Jetties, Container Terminals, Dry docks, Barges, Ferry Boats, Navy Ships, Tug Boats, Fiber Glass Boats, Pontoons, Catamarines etc.
Rane also does designing of fendering system for new jetties or for existing one as per the international and Indian standards and also do installation of the fendering system with the help of experienced engineers.

Today Rane's range covers every requirement of rubber fenders from 50mm light craft fendering to heavy-duty diameter cylindrical fenders to provide impact protection for quay walls.

ARCHITECTURAL PROTECTIVE RUBBER GUARDS

Corners, edges, projections, etc are subjected to impact load due to movements of vehicles and other material handling equipments, because of which cracks and damages are often observed in such locations. To eliminate occurrence of such damages RANE has successfully introduced ARCHITECTRUAL PROTECTIVE RUBBER GUARDS.

RANE Lauched its commercial Production of Architectural Protective Rubber Guards in the Year 1998 using Extrusion and Molding Process.

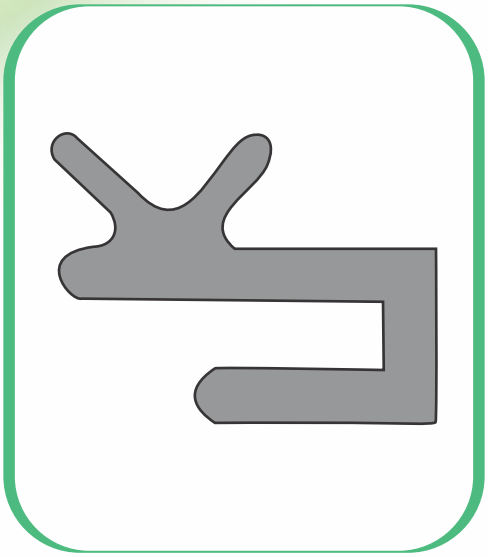
Today' RANE is manufacutring all types of Architectual Protective Rubber Gaurds Line "D" Fender, DUO Fender. "E" Fender, Midi Fender, Corner Gaurds, Loading Bumpers, Wall Bumpers, Speed Breakers, Molded Bumpers etc.

This Guards are available in different size, shape and length and also as per customer's requirement.

RANE'S Architectrual Protetvie Rubber Gaurds Play active role in many areas like, ware house, Godowns, Loading / unloading Bays, Hospitals, Parking Lots, Departmental Stores etc.

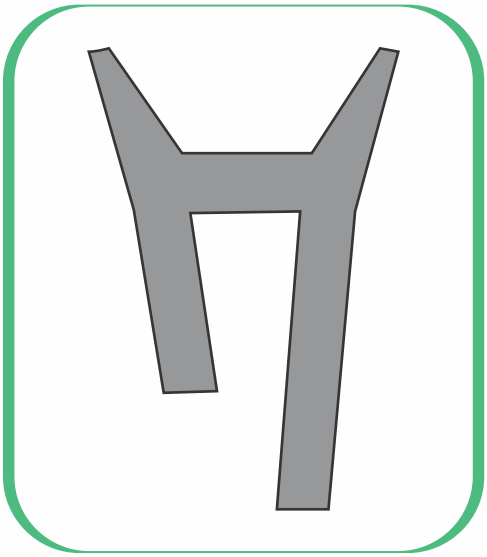
EXTRUDED PROFILES / SECTIONS

Extruded Profiles



L&T Switch Board Gasket

Weather & Filler Strip



Siemens 'H' Type Gasket

Extruded Profile

Applications

SHIPPING

CHEMICAL

TRANSPORT

CONSTRUCTION

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