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14001:2015
45001:2018
Certified Company

TÜVNORD

MIL

MIL INDUSTRIES LIMITED



MILGERLAN
LININGS

**COMPLETE
SOLUTIONS FOR
CORROSION
RESISTANT
APPLICATIONS**

MIL, the country's leader in corrosion and abrasion resistant rubber linings for more than five and half decades. Set up in collaboration with **Societe Chimique de Gerland, France**, and subsequent technical know-how from **OHJI Rubber & Chemicals Co. Japan**. India's largest and most modern rubber lining facility, MIL has been supplying the entire range of rubber and other elastomer linings for both standard and highly specialized process equipment.

MIL has, over the years, successfully executed numerous challenging projects for various process industries. A review of MIL's list of prestigious clients, the nature and size of jobs undertaken both in India and abroad - a number of which have been repeat orders - is testimony to the confidence reposed in MIL by Indian and international clients.

MIL's well equipped R & D division is continually seeking and making available to its clientele new and improved formulations to cater to highly critical operating conditions.

VISION

To be the global benchmark in corrosion and abrasion-resistant solutions, driving innovation and sustainability in industrial processes, thereby remaining globally competitive.

MISSION

Our mission is to deliver world-class products and services that exceed customer expectations while continuously innovating and advancing our technologies to meet evolving industry needs.

We are committed to upholding the highest standards of quality, safety, and environmental stewardship, ensuring excellence in every aspect of our operations.

MIL Factory, Ambattur, Chennai



GOALS

- ▶ **Innovation Leadership:** To remain at the forefront of technological advancements in corrosion and abrasion-resistant Rubber Linings.
- ▶ **Global Expansion:** To strengthen our international presence and establish MIL as a trusted name worldwide.
- ▶ **Sustainability:** To integrate eco-friendly practices into all aspects of our operations.
- ▶ **Customer Centricity:** To build enduring partnerships by delivering tailored solutions and unparalleled service.

RESEARCH AND DEVELOPMENT

Innovation drives progress at MIL Industries Ltd. through advanced tools and collaboration with global technology leaders, we deliver sustainable, durable, and cost-effective solutions that enhance performance and efficiency for our clients.

From enhancing product performance to ensuring operational efficiency, our R & D efforts aim to provide our clients with sustainable, durable, and cost-effective

solutions. Whether it's pioneering techniques like Cold Bond Rubber Lining or optimizing material properties for specialized applications, the R&D division ensures MIL remains a leader in innovation and technical expertise.

QUALITY

Quality is the hallmark of MIL Industries Ltd., defining every aspect of our operations. As an ISO 9001, ISO 14001, and ISO 45001 certified company, MIL Industries Ltd. prioritizes quality in every aspect of our operations. Our comprehensive management system emphasizes meticulous detail throughout manufacturing, from material selection to final delivery.

TÜVNORD

With rigorous quality control and a zero-defect goal, we ensure our products are reliable, durable, and perform even in demanding environments. This commitment reflects our responsibility towards product excellence, environmental sustainability, and occupational safety.



Lining Bay

MILGERLAN RUBBER COMPOUNDS FOR DIFFERENT APPLICATIONS

Soft Natural Rubber	30-70°A	Suitable upto 70°C. Lower hardness compounds for abrasive conditions and higher hardness compounds for chemical resistance.
Semi - Ebonite Natural Rubber	60-70°D	Suitable upto 100°C. Resistant to Chemicals except chlorine and chlorine-based compounds.
Black Semi-Ebonite Natural Rubber	65-75°D	Suitable for Fluorine, Caustic Soda (Low Ca. Mg. Si.) & Membrane cell industry up to 100°C.
Ebonite Natural Rubber	75-85°D	Suitable upto 100°C. Highly resistant to chemical attack including chlorine and chlorine based compounds.
Neoprene	60-70°A	Suitable upto 110°C. Has good abrasion resistance and chemical resistance even in presence of mineral oil.
Butyl / Bromo Butyl / Chloro Butyl	50-60°A	Resistant to most chemicals of temperature up to 100°C Has excellent water-proofing and weathering characteristics.
Hypalon	55-65°A	Has excellent resistance against sulphuric-acid, chromic acid and other oxidizing agents even up to 120°C.
Food Grade Natural Rubber	60-70°A	Suitable for Pharmaceutical & Syrup Processing Industries upto 70°C.
Nitrile Ebonite	70-75°D	Suitable upto 110°C. Resistant to mineral oils and many solvents.
Silicone Rubber	40-80°A	Suitable for temperature range 30°C to 180°C. Resistant to oxidation effect and most chemicals. Has also excellent weathering characteristics.
Soft / Hard / Soft (Triflex type-triple layer)	55-69°A	Suitable for combined resistance to chemical, abrasion and mechanical shocks upto 90°C.
EPDM	70-80°A	Suitable up to 100°C. Resistance to most chemicals. Used extensively for gaskets. Has excellent water proofing and weathering characteristics.
Viton (Moulding Compound)	70-80°A	Suitable up to 180°C. Resistant to highly corrosive chemicals and oils.

The above chart is only general in nature.

We recommend that our experts be consulted for selection of lining compounds specific to each case.

M/s Jordan India Fertilizer Company LLC, Jordan



METHODS OF VULCANISATION

- ▶ AUTOCLAVE VULCANISATION
- ▶ INTERNAL PRESSURE (HIGH / LOW) VULCANISATION
- ▶ EXHAUST STEAM / HOT WATER VULCANISATION
- ▶ COLD BOND SYSTEM

Internal pressure vulcanization is adopted for rubber lining at site of large vessels designed to operate under vacuum conditions.

Exhaust steam/Hot water vulcanization is employed for those equipment/tanks erected at client's site and which are not designed to operate under pressure.

The cold bond system of lining pioneered by MIL in India has been accepted as the most suited for site lining of large storage tanks, particularly under Indian climatic conditions. This System consists essentially of carrying out lining with pre-vulcanised rubber sheets (Vulcanised in MIL's autoclave by a unique process) and using special adhesives. Rubber lining carried out in this manner has proved to be superior to lining with self-curing compound which has the inherent disadvantage of deterioration during transportation / application and additional cost towards freight and storage.

The Cold Bond system has been widely employed in fertilizer, mining and chloralkali industries for site lining of very large equipment such as storage tanks/vessels etc.



MIL operates three large autoclaves, providing significant leverage in the curing of large-diameter vessels.



2.8 MTR DIA X 8 MTR LONG



3.5 MTR DIA X 12 MTR LONG



5 MTR DIA X 8 MTR LONG

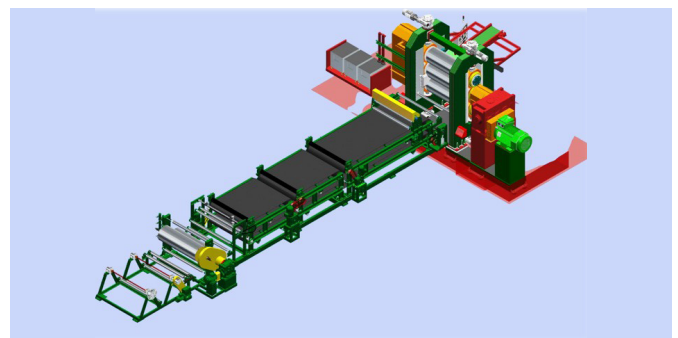
In recent years, MIL Industries Ltd. has undertaken a comprehensive revamp and upgrade of its entire manufacturing facility, including the State-Of-The-Art R&D Center in Chennai, India.

A new State-of-art fully automated Calender Line with Cutting edge technology & precision Engineering to produce Rubber Sheets ranging from 0.75mm thick & 1400mm width of Global Standards with a capacity of 4 - 5 Tons / Shift.

This line has advanced automation in Rubber feeding, Doubling, Thickness measuring, Sizing, Cooling & Winding operations which enhances the overall quality of Rubber Sheets produced.

These upgrades have significantly expanded our manufacturing capabilities, enabling us to produce extra-wide sheets and sheets up to 16 meters in length to meet diverse site job requirements.

This modernization includes the addition of advanced fully automated Wide Belt Rubber Sheet Sander Machine with Advance PLC control to get precious sandered surface on Pre-Vulcanised Rubber Sheets used for on-Site Lining with Cold Bond Adhesive systems.



MIL Industries Ltd. has successfully executed Rubber lining projects for Flue Gas Desulfurization (FGD) Systems in Thermal Power Plants, demonstrating its expertise in the large scale.

National Thermal Power Corporation - NTPC

Super Thermal Power Plant, MP for 1 x 500 MW Plant.
Telangana Super Thermal Power Plant Phase I for 2 x 800 MW.
Tanda Thermal Power Station, UP Stage-II for 2 x 660 MW.
Simhadri Super Thermal Power Plant, AP for 4 x 500 MW.
Feroze Ghandhi Unchahar Thermal Power Plant, UP, Stage I to III 5 x 210 MW.
Vallur Thermal Power Plant Tamil Nadu for 3 x 500 MW.

Adani Power Limited

UDUPI Thermal Power Plant Karnataka for 2 x 600 MW.

Gujarat State Electricity Corporation Limited.

Sikka Thermal Power Station for 2 x 250 MW

Maharashtra State Power Generation Co.

Bhuswal Thermal Power Station for 1 x 660 MW

Bangladesh India Friendship Power Co. Ltd.

Maitree Super Thermal Power, for 2 x 600 MW



VALUED CLIENTS

PHOSPHATIC FERTILIZER INDUSTRY

Coromandel International Ltd.,
 Deepak Fertilisers & Petrochemicals Corpn. Ltd.
 Gujarat State Fertilizers & Chemicals Ltd.
 Hindalco Industries Ltd.
 Indian Farmers Fertilizer Co-op. Ltd
 Madras Fertilizers Ltd.
 Mangalore Chemicals & Fertilizers Ltd.
 Paradeep Phosphates Ltd.
 Greenstar Fertilizers Ltd.
 Vedanta Ltd.
 Indorama India Pvt. Ltd., Haldia
 BEC Fertilizers, Bilaspur
 The Fertilisers & Chemicals Travancore Ltd.
 Zuari Agro Chemicals Ltd.
 Yara Fertilisers India Pvt. Ltd.

Ma'aden Phosphate Company, Saudi Arabia
National Chemical Fertilizer Co. Saudi Arabia
Arabian Agricultural Services Co. Saudi Arabia
Indo-Jordan Chemicals Co. Ltd. Jordan
Jordan Phosphate Mines Co. Jordan
Jordan India Fertilizer Company LLC. Jordan
Al-Qawafel Industrial Agricultural Co. Jordan
Nippon Jordan Fertilizer Company WLL. Jordan
International Ferti Technology Corp., Jordan.
FOSKOR, South Africa
Indorama-ICS, Senegal
International Chemicals Company- SAE Egypt
Tunisian Indian Fertilizers (TIFERT), Tunisia
Petrovietnam Fertilizer & Chemicals Co., Vietnam
Razi Petrochemicals Company, Iran
El Sharika El Djazaria El Omania Lil Asmida Spa,
Algeria
Philippine Phosphate Fertilizer Corp. Philippines

CHLORO ALKALI INDUSTRY

Andhra Sugars Ltd.
 Grasim Industries Ltd. - All units.
 Chemfab Alkalis Ltd.
 Chemplast Sanmar Ltd.
 DCW Ltd.
 Gujarat Alkalies & Chemicals Ltd.

Shriram Alkali & Chemicals Ltd. (DCM Sriram Ltd.)
 SIEL Chemicals Ltd.,
 TGV SRAAC Limited
 The Travancore Cochin Chemicals Ltd.
 United Phosphorous Ltd.
 Punjab Alkalies & Chemicals Ltd, Chandigarh
 Tamilnadu Petroproducts Ltd., Heavy Chemical Division.
 ...and all other Chlor-Alkali Industries in India

Al-Kout Industrial Projects, Kuwait
Emirates Chemical Industries Co. Ltd. U. A. E
National Chlorine Industries (ADNOC Group), UAE &
in Jordan
Rayon States Company. Iraq
Safewater Chemicals, Abudhabi. UAE
Samuda Chemical Complex Limited. Bangladesh
TCI Sanmar Chemicals. Egypt
De Nora Permelec Pte. Ltd. Singapore
MISR Chemical Industries, Egypt
Petrochemical Industries Co. (KSC). Kuwait
Qatar Vinyl Company Ltd. Qatar
Qatar Petrochemical Company (QAPCO). Qatar
Oman Chlorine (SAOG). Oman
Al-Ghaith Industries. UAE & Oman
Saudi Factory for Chlorine & Alkalies. KSA
Societe Cherifienne D'engrais Et De Produits
Chimiques (SCE). Morocco
SCE Chemical Abidjan, Ivory Coast Project.

SPACE & ATOMIC ENERGY

Satish Dhawan Space Centre, Sriharikota
 Vikram Sarabhai Space Centre, Trivandrum
 L & T, Defence
 Department of Atomic Energy

MINING AND MINERAL INDUSTRY

Hindustan Zinc Ltd. - Chanderia, Dariba & Debari Plants
 Cochin Minerals & Rutile Ltd.
 Indian Rare Earths Ltd.
 Kudremukh Iron Ore Company Ltd.
 Neyveli Lignite Corporation Ltd.
 The Kerala Minerals & Metals Ltd.
 Toyotsu Rare Earths India Pvt. Ltd.
 Uranium Corporation of India Ltd.

VALUED CLIENTS

Kishanfu Mining SA, Congo
Ceylon Mineral Sands Corpn. Sri Lanka

POWER PLANTS

GE Power India Limited, Noida
NTPC Limited - Vindhyachal, Tanda, Telangana,
Unchahar & Simhadri
Adani Power Ltd. Udupi
Gujarat State Electricity Corporation Ltd., Sikka
Maharashtra State Power Generation Co. Ltd.
Vallur Thermal Power Plant, Chennai

Toshiba Plant System & Services Corp, Bangladesh
*Bangladesh India Friendship Power Co. Ltd.,
Bangladesh*
Ghubrah Power & Desalination Plant, Oman

OTHER INDUSTRIES

Alufluoride Ltd.
Audco India Ltd.
Bharat Heavy Electricals Ltd.
Takraf India Pvt. Ltd (Delkor)
Finolex Industries Ltd.
GEA BGR Energy Systems (India) Ltd.
ISGEC Heavy Engineering Limited, Haryana
Heavy Vehicles Factory (CVDRE)
Ion Exchange (India) Ltd.
Rallis India Ltd.
Tamilnadu Petroproducts Ltd.
Thermax Ltd.
Titanium Equipment & Anode Mfg. Co. Ltd.
Va Tech Wabag Ltd.
Sayaji Industries Limited
Cargill India Private Limited, Karnataka
Ultramarine Specialty Chemicals Limited, Nellore, AP
Indian Oil Corporation Limited, Vadodara
Ruchi Infrastructure Ltd. Haldia
Triveni Engineering & Industries Ltd.

Al-Muntaser Trad. & Gen. Cont. Co. W.L.L., Kuwait
Gulf Stainless Steel Factory, Kuwait
Kiran Int. Gen. Trading & Cont. W.L.L., Kuwait
Kuwait Industrial Refinery Maint. & Engg. Co.
Naser M Al-Baddah & Partner Gen. Tdg, Kuwait

Ghaida Alkuwait Gen. Trading & Cont. Co., Kuwait.
Aldobowi Ltd. UAE

Nabha Rubber Factory Co. Ltd, Saudi Arabia
Conpipe International B. V, The Netherlands
Drury Industries Ltd. Nigeria
General Automotive Co. Ltd. Saudi Arabia
General Industries Co Ltd, Saudi Arabia
Halliburton Ltd. Bahrain
Jordan Bromine Co. Jordan
Multi Flex Degremont Jt. Venture, Australia
Picfare International UK Ltd. UK
Tekzone, Dubai.

Thanglong Technical Trading & Const. J.S.C. Vietnam
VISOTECH-JSC, Vietnam
Cape East Limited, Doha, Qatar
Integrated Solutions for Eng. Supplies Co. Jordan

CONSULTANTS

Birla Technical Services Ltd.
Davy Powergas (India) (P) Ltd
Development Consultants Ltd.
Engineers India Ltd.
FACT Engg. & Design Organization (FEDO)
Humphreys & Glasow Consultants (P) Ltd.
FLSmith Private Limited
Protech Consultants Pvt. Ltd.
Jacobs H&G Ltd.
Lurgi India Company (P) Ltd,
Nicco Corporation Ltd.
Nuberg Engineering Ltd.
Shriram Project Engg & Consultancy Services Ltd,
Technimont ICB Ltd
Toyo Engineering India Ltd.
Thyssenkrupp System Engg. India Pvt. Ltd. (UHDE)
Nuberg Industries Ltd. Noida
Simon India Limited, Gurgaon

Hitachi Zosen Corporation, Japan
Krebs & Co. Ltd. Switzerland
Technip - Coflexip, France
Technologie Progetti Lavori SpA, Italy
Chemieanlagenbau Chemnitz GmbH (CAC), Germany

...and other leading consultants in India & Overseas

RUBBER LINING



CORROSION RESISTANT RUBBER LINING

For process equipment / vessels, storage tanks, ducts, columns and other specialized items.

ABRASION RESISTANT RUBBER LINING

For chutes, hoppers, launders, bins, ball mills, cyclones, ducts etc.

RUBBER LINED PIPES & FITTINGS AND EQUIPMENT

For both corrosion and abrasion resistant services as per Client's requirement.

RUBBER LINING OF COMPLETE FGD SYSTEM FOR THERMAL POWER PLANTS

RUBBER SHEETS

Natural Rubber and Synthetic Rubber pre-vulcanised sheets for Chemical and abrasion resistance.

WATER PROOF MEMBRANES

Flexible membranes of Butyl, EPDM and Butyl / EPDM for lining of canals, dams, beds and structures, effluent pits, evaporation ponds, roofings etc

EBONITE PRODUCTS

Tubular liquid distribution and distance pieces resistant to Chemicals and temperature

SPECIAL RUBBER PUTTY & SPECIAL ADHESIVES

For repair work

RUBBER PRODUCTS



RUBBER EXPANSION JOINTS / BELLOWS

For Process & Vacuum Applications and to resist chemical corrosion & slurry abrasion. Robust in construction and have excellent movements and anti-vibration properties.

RUBBERISED ROLLERS

For Conveyor System Applications. Naturel/Synthetic Rubber lagging with Plain Helical and Diamond grooving finish.

GRANULATOR RUBBER PANELS

For DAP Granulators - Rubber Panels are designed for high abrasive and higher operating temperature.

RUBBER HOSES

For Vacuum and Pressure Applications. Suitable for handling chemicals, slurry and oil service. Size 50 NB to 800 NB and Length up to 10 mtr.

DREDGING HOSES

For Dredging operations in Ports. Size 200 NB & above.

MOULDED / EXTRUDED RUBBER PRODUCTS

High quality moulded / extruded items made to Client's specifications such as Lock Flap Assembly, 'O' Rings, Gaskets, Impellers, etc.



Head Office & Address for Communication

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