

COMPANY PROFILE



مؤسسة صمام الثنائي التجارية
DIODE TRADING EST.

- Outrigger Pads
- Ground Protection Mats
- Ground Protection and Trackway Solution
- Bridge Bearing Pads
- Technical Engineering Plastic Products
- Engineering Plastics Product
- Engineering Plastics & High-Performance Polymer Products
- PE Shims
- PE Cutting Boards
- PTFE Products
- Rubber Mats / Rubber Tiles
- Industrial Mats
- Industrial PVC Interlocking Tiles
- Premium Rubber Mats and Tiles – Sports and Gym Flooring
- Sports Flooring Products
- Gym Flooring Products
- Rubber Wall Guard Protection System
- Building Protection System
- Parking Solution Products
- PE Dock Bumper
- UHMWPE Fender
- Cargo Grip Container
- Wheel Chocks
- Gaskets & Seal Materials
- Rubber Support Insert for Chilled Water & HVAC Pipes
- Mechanical & Industrial Solution
- Rubber & Polyurethane Product
- Rubber Conveyor Belts
- Industrial Rubber Lining Solutions

BRING THE NEW IDEA TO FUTURE OF WORLD **BUSINESS**

"Passion is the key essential force that drives our success. it determines everything that we think.





TABLE OF CONTENTS

ABOUT US	04
-----------------	-----------

Ground Support, Load Distribution & Access Systems

Outrigger Pads	05-08
Ground Protection Mats	09
Ground Protection and Trackway Solution	10-12
Bridge Bearing Pads	13

Engineering Plastics & High-Performance Polymer Products

Technical Engineering Plastic Products	14
Engineering Plastics Product	15
Engineering Plastics & High-Performance Polymer Products	16-17
PE Shims	18
PE Cutting Boards	19-20
PTFE Products	21

Industrial Flooring, Matting & Surface Systems

Rubber Mats / Rubber Tiles	22
Industrial Mats	23
Industrial PVC Interlocking Tiles	24
Premium Rubber Mats and Tiles – Sports and Gym Flooring	25
Sports Flooring Products	26
Gym Flooring Products	27





TABLE OF CONTENTS

Building, Parking & Structural Protection Systems

Rubber Wall Guard Protection System 28

Building Protection System 29

Parking Solution Products 30

Marine, Port & Dock Protection Systems

PE Dock Bumper 31

UHMWPE Fender 32

Material Handling, Transport & Cargo Safety Solutions

Cargo Grip Container 33

Wheel Chocks 34

Mechanical Support, Vibration & Sealing Solutions

Gaskets & Seal Materials 35

Rubber Support Insert for Chilled Water & HVAC Pipes 36

Mechanical & Industrial Solution 37

Rubber & Polyurethane Industrial Products

Rubber & Polyurethane Product 38

Rubber Conveyor Belts 39

Industrial Rubber Lining Solutions 40-41

Our clients 42

Contact & Ordering Information 43



ABOUT US

■ INTRODUCTION



Welcome to Diode Trading Est. where excellence meets reliability. We are a dynamic and innovative company specializing in providing comprehensive trading and contracting services to meet a diverse range of needs across various industries. With a steadfast commitment to quality, efficiency, and client satisfaction, we have established ourselves as a trusted partner in the marketplace.

OUR MISSION

At Diode Trading Est., our mission is to deliver superior solutions that exceed expectations and contribute to the success of our clients. We strive to build long-lasting relationships based on integrity, professionalism, and mutual respect.

OUR VISION

Our vision is to be the premier provider of trading solutions, setting the standard for excellence and innovation in the industry. We aspire to:

Be a Trusted Partner: We aim to be the go-to partner for businesses seeking reliable trading solutions. Our commitment to integrity, transparency, and customer satisfaction will solidify our reputation as a trusted and dependable ally in the marketplace.

Drive Growth and Success: We envision ourselves as catalysts for the growth and success of our clients. By delivering exceptional value, quality products, and innovative solutions, we will empower our clients to thrive in their respective industries and achieve their business objectives.

Embrace Innovation: Innovation is at the core of our vision. We strive to be at the forefront of technological advancements, market trends, and best practices in trading. By embracing innovation and leveraging new opportunities, we will continuously enhance our offerings and remain ahead of the curve.

SAFERIG - **SafeRig** OUTRIGGER PADS

UHMWPE OUTRIGGER PADS

High-Performance Ground Stability for Heavy Equipment



Product Description

SAFERIG UHMWPE Outrigger Pads are high-performance ground support solutions designed to stabilize heavy-duty equipment during lifting, setup, or stationary operations. Crafted from 100% virgin Ultra-High Molecular Weight Polyethylene (UHMWPE), these pads provide unmatched load-bearing strength, resilience in extreme environments, and lightweight mobility. They distribute the weight of equipment across a broader surface area, preventing sinking and maintaining safety on soft, uneven, or sensitive terrain.

Ideal for use under crane outriggers, stabilizer legs, jacks, and track-based machinery, these pads combine durability, chemical resistance, and non-corrosive properties with ease of handling and visibility on active work sites.

Primary Uses

- To stabilize heavy equipment such as cranes, boom trucks, fire engines, and construction vehicles
- To protect soft or sensitive ground surfaces (asphalt, grass, soil, sand, or gravel)
- To distribute equipment loads and prevent tipping or ground penetration
- To enhance safety by providing a stable, flat base under machinery supports

Applications

- Construction & Infrastructure Projects: Cranes, mobile concrete pumps, drilling rigs
- Utility & Energy Sectors: Power generator bases, oilfield rigs, transformer stations
- Fire & Rescue Operations: Fire trucks, hydraulic rescue equipment
- Military & Defense: Tactical vehicle deployment and machinery stabilization
- Events & Temporary Installations: Mobile stages, outdoor equipment setups



Key Features

- High Load-Bearing Capacity
- Anti-Slip Textured Surface
- UV, Chemical, and Water Resistance
- Temperature Resistance from -80°C to +80°C
- Non-Conductive and Spark-Free
- Beveled and Rounded Edges for safety and handling
- Lightweight and Easy to Transport
- No Corrosion, No Rot, No Rust
- Certified for Quality and Safety Standards
- 2-Year Warranty
- Customization Available (Size, shape, color, logos, handles)

Technical Aspects

Property	Details
Material	100% Virgin UHMWPE
Load Rating	Up to 300+ tons (depending on thickness and surface area)
Surface Texture	Smooth finish with anti-slip pattern
Edges	Beveled and rounded for safety and placement ease
Handles	Reinforced nylon or optional steel hook handles
Operating Temp.	-80°C to +80°C
Friction Coefficient	Low friction, self-lubricating
Color Options	Yellow, Black, Red, Orange, Blue, Custom
Thickness Options	Typically 25mm to 100mm+
Density	~0.94 g/cm ³
Customization	Logos, embossing, drilling patterns, colors, sizes

Advantages Over Traditional Materials

- Vs. Wood: No rot, splintering, water absorption, or insect damage
- Vs. Steel/Aluminum: Corrosion-free, lighter, non-sparking, no sharp edges
- Vs. Rubber: Superior load capacity and dimensional stability under stress

Customization Capabilities

- Shapes: Round, square, rectangular, octagonal
- Dimensions: Customized per application and equipment load rating
- Color Coding: For site safety, visibility, or equipment type
- Branding: Custom logo printing or engraving
- Handling Systems: Multiple handle types for safe transport

Why Choose UHMWPE Outrigger Pads?

SAFERIG Outrigger pads are certified for safety and performance, built to withstand harsh operating conditions, and designed to meet the toughest demands of the industrial and construction sectors. Their adaptability and reliability make them a smart investment in worksite safety and equipment longevity.

Technical Aspects

SN	Size	Load Capacity	Weight	Load Square Area	Product Code
01	300 X 300 X 30mm	5 tonnes	2.7 kg	0.09 m ²	SR-333
02	400 X 400 X 40mm	10 tonnes	6.4 kg	0.16 m ²	SR-444
03	400 X 400 X 50mm	12 tonnes	8 kg	0.16 m ²	SR-445
04	500 X 500 X 40mm	15 tonnes	10 kg	0.25 m ²	SR-554
05	500 X 500 X 50mm	20 tonnes	12.5 kg	0.25 m ²	SR-555
06	600 X 600 X 40mm	20 tonnes	14.4 kg	0.36 m ²	SR-664
07	600 X 600 X 50mm	25 tonnes	18 kg	0.36 m ²	SR-665
08	600 X 600 X 60mm	30 tonnes	21.6 kg	0.36 m ²	SR-666
09	700 X 700 X 50mm	35 tonnes	24.5 kg	0.49 m ²	SR-775
10	700 X 700 X 60mm	50 tonnes	29.4 kg	0.49 m ²	SR-776
11	800 X 800 X 50mm	50 tonnes	32 kg	0.64 m ²	SR-885
12	800 X 800 X 60mm	<55 tonnes	38.4 kg	0.64 m ²	SR-886
13	800 X 800 X 70mm	75 tonnes	44.8 kg	0.64 m ²	SR-887
14	800 X 800 X 80mm	80 tonnes	51.2 kg	0.64 m ²	SR-888
15	1000 X 1000 X 50mm	75 tonnes	48 kg	1.00 m ²	SR-10105
16	1000 X 1000 X 60mm	80 tonnes	60 kg	1.00 m ²	SR-10106
17	1000 X 1000 X 70mm	100 tonnes	70 kg	1.00 m ²	SR-10107
18	1000 X 1000 X 80mm	120 tonnes	80 kg	1.00 m ²	SR-10108

Technical Aspects

SN	Size	Load Capacity	Weight	Load Square Area	Product Code
19	1000 X 1000 X 100mm	160 tonnes	100 kg	1.00 m ²	SR-101010
20	1200 X 1200 X 60mm	180 tonnes	86.4 kg	1.44 m ²	SR-12126
21	1200 X 1200 X 80mm	220 tonnes	115.2 kg	1.44 m ²	SR-12128
22	1200 X 1200 X 100mm	220 tonnes	144 kg	1.44 m ²	SR-121210
23	1500 X 1500 X 100mm	250 tonnes	225 kg	2.25 m ²	SR-151510
24	2000 X 1000 X 100mm	280 tonnes	200 kg	2.00 m ²	SR-202010
25	3000 X 1000 X 100mm	300 tonnes	300 kg	3.00 m ²	SR-303010



Ground Protection Mats

Heavy-duty, temporary surfacing solutions, Ground Protection Mats, are designed to safeguard delicate ground surfaces from damage caused by heavy vehicles, equipment, and foot traffic. The Ground Protection Mats are ideal for landscaping, events, construction, utilities, and various other industries.



Uses of Ground Protection Mats

Ground Protection Mats are used to safeguard surfaces and protect them from damage while maintaining stability. These mats offer durability, a grip on ground surfaces, and load-bearing systems.

Ground protection mats help construction sites create stable pathways, ensure the safe movement of heavy equipment, and prevent damage to landscaping and agricultural areas.

Ground Protection and Trackaway Solution

Ground protection and trackway solutions are specialized systems used to protect uneven, soft and sensitive ground surfaces and to create temporary access routes for machinery, vehicles and foot traffic. They are commonly used in construction, utilities, oil and gas, events, and landscaping sites. The industries that gain advantage with these solutions include oil, gas, utilities, and industrial operations, construction and infrastructure, sports, stadiums, warehousing and transportation hubs, municipalities, disaster relief, and so on. Product range includes HD (Heavy-duty trackway for industrial and construction Environments requiring high load capacity and LD (Light-duty trackway for events, stadiums, pedestrian access, and turf protection).



Technical Specifications – Heavy Duty (HD)

Specification	Value	Event Company Benefit	Use Case
Load Capacity	30 tons/m ²	Stage area, structurally heavy equipment, and trucks supported	The main access route for production vehicles
Tile Dimensions	500 × 500 × 50 mm	Modular & predictable layout for planners	Roads for large event sites
Weight	3.2 kg per tile	Easy and convenient handling during the fast setup	Rapid deployment crew operations
Surface	Vehicle-grade anti-slip	Forklifts and trolleys operate with less wear and tear	Arena + backstage logistics
Material	Recycled PP + UV additives	Eco-friendly solution for green events	Long-term outdoor exposure
Assembly	1 × 2 m pre-assembled sheets	Faster build-outs for tight deadlines	Concert & festival setups

Technical Specifications – Light Duty (LD)

Specification	Value	Event Company Benefit	Use Case
Load Capacity	10 tons/m ²	Supports crowd movement & small vehicles	Event walkways, F&B routes
Tile Dimensions	600 × 150 × 23 mm	Flexible layouts for creative designs	Tent flooring & booth areas
Weight	550 g per tile	Effortless manual handling	Large footprint events with quick turnover
Surface	Non-slip textured	Safe for high foot traffic	Stadium turf protection
Material	Lightweight UV-stabilised plastic	Long outdoor durability	Multi-day outdoor events
Assembly	Rollable + tool-free clips	Perfect for rapid deployment & recovery	Festivals, exhibitions

HD Technical Specifications

Specification	Details
Tile Size	500 × 500 mm (0.25 m ²)
Thickness	50 mm
Weight	12.8 kg/m ² (approx. 3.2 kg per tile)
Material	PP recycled + virgin blend
Load Capacity	6.21 MPa / 900 psi / 30 tons/m ²
Fire Rating	ASTM E84 (FSI 75, SDI 1000)
Pallet Coverage	43 m ² per pallet
40 ft Truck	946 m ²
40 ft Container	860 m ²

HD Technical Specifications

Specification	Details
Tile Size	600 × 150 × 23 mm
Weight	550 g per tile
Sheet Size	1.2 × 2.1 m (2.52 m ²)
Surface Area per Tile	0.09 m ²
Material	Lightweight plastic with UV stabilisers
Point Load	10 tons/m ²
Fire Rating	ASTM E84-20 (FSI 75, SDI 1000)
Pallet Coverage	113 m ² (single), 226 m ² (double)
20 ft Container	1130 m ²
40 ft Container	2260 m ²

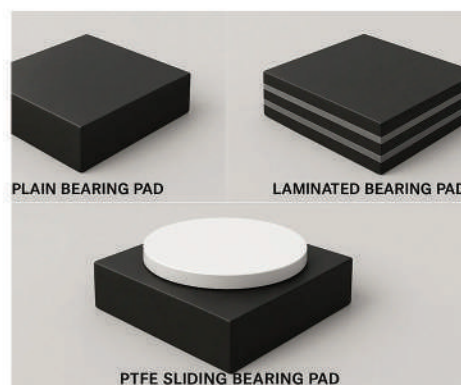
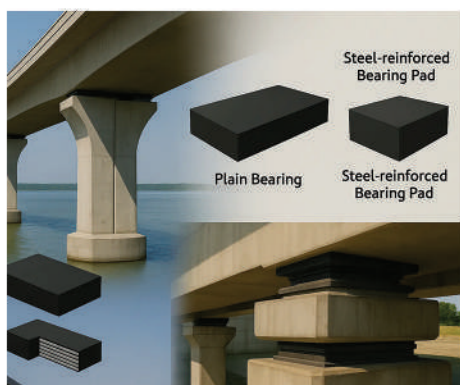
HD vs. LD – Which System Do You Need?

Requirement	HD Tiles	LD Trackway
Heavy vehicles & machinery	✓	✗
Light vehicles on hard ground	✓	✓
Pedestrian walkways	✓	✓
Grass protection	✗	✓
Fastest installation speed	Moderate	Very fast
Industrial environments	✓	✗
Event & hospitality	✓	✓
Temporary access roads	✓	✗

Bridge Bearing Pads

Bridge Bearing Pads (Neoprene, PTFE & Steel-Reinforced)

A bridge bearing pad is a specifically designed load-bearing component placed between the bridge deck and the supporting piers or abutments. Its purpose is to transfer loads safely, reduce absorption, and absorb movement. The advantages of using bridge bearing pads include horizontal and high vertical load bearing capacity, managing rotation and thermal expansion, absorbing vibration and reducing noise, excellent weather assistance, UV protection, and chemical resistance.

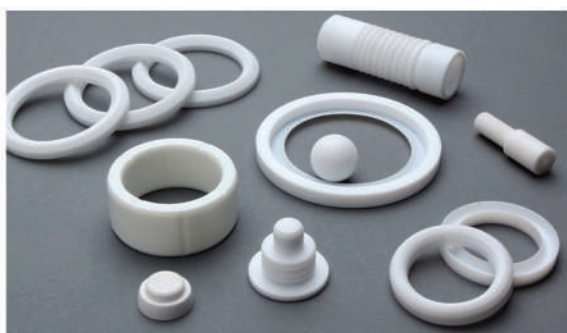
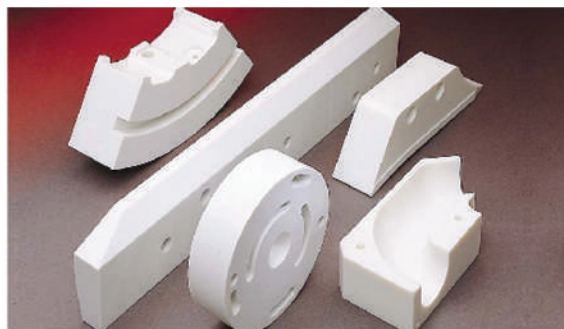


Comparison of all bearing pad types:

Specification	Neoprene Bearing Pad	PTFE Sliding Pad	Specification
Material	Chloroprene Rubber (CR)	Rubber + PTFE Layer	Rubber + Steel Laminations
Load Capacity	High	High (Low Friction)	Very High
Movement Capability	Thermal + Rotation + Shear	Large Sliding Movement	Thermal + Seismic Movement
Durability	UV, Weather, Chemical Resistant	Abrasion + UV Resistant	Extreme Structural Durability
Shapes	Rectangular / Circular / Custom	Rectangular / Custom	Rectangular / Square
Best Use	Standard & Highway Bridges	Long-Span Bridges	Heavy-Load Structures

Technical Engineering Plastic Products

Diode Trading EST offers silicone plastic sheets. These sheets are durable, flexible, and heat-resistant. Silicone rubber sheets are utilized by various industries and in numerous applications. Our sheets are heat-, weather-, and chemical-resistant, and are used in different sectors, with a reliable supply to multiple industries.



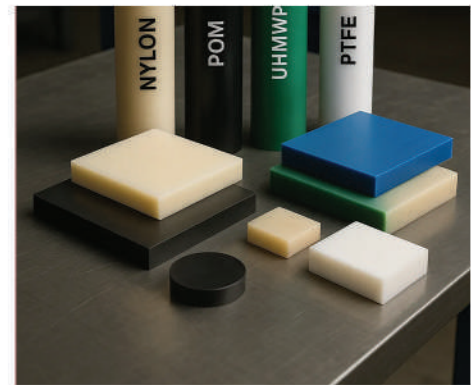
Uses of Silicone Rubber Sheets

Silicone rubber sheets are used in distinct industries and applications, including the automotive industry, food and beverage, industrial sealing, the electrical industry, and medical applications.

Engineering Plastics Product

Engineering Plastics: Sheets, Tubes, Rods in Saudi Arabia and the GCC

Engineering plastics products are high-performance plastics designed to be durable, strong, and heat and chemical-resistant compared to regular plastics. These products are used to replace metals in several applications as they are lightweight but strong. Engineering plastics offer a high strength-to-weight ratio, are resistant to wear and abrasion, are highly machinable for custom parts, have a wide operating temperature range, and provide excellent moisture resistance.



Our Range of Engineering Plastics

Material	Form Available	Key Features	Common Applications
Nylon (PA6, PA66, PA12)	Rods, Sheets, and Tubes	High mechanical strength, resistant to impact & wear	Bushings, rollers, gears, and structural parts
Polyacetal (POM / Delrin / Acetal)	Rods and Sheets	High-dimensional stability Low friction	Bearings, gears, and precision components
Polyethylene (HDPE, UHMWPE 1000, HMWPE 500)	Sheets and Rods	Lightweight Impact-resistant	Cutting boards, tanks, and marine fittings
Polypropylene (PP)	Rods, Sheets	Chemical-resistant	Chemical tanks & lab equipment
Polyethylene Terephthalate (PET)	Rods, Sheets	Low absorption of moisture Rigid	Machine parts and wear plates
Polyvinyl Chloride (PVC)	Rods, Sheets	Flame-retardant and resistant to chemicals	Pipe fittings, electrical insulation
Polyether Ether Ketone (PEEK)	Sheets and Rods	Resistant to chemicals and high temperatures	Aerospace, oil & gas, medical
Bakelite (Phenolic Cotton & Paper)	Sheets, Rods	Rigidity, electrical insulation	Electrical panels, spacers, supports
Polyurethane (PU)	Sheets, Pads	Flexible, abrasion-resistant	Shock absorbers and stabilizer pads
Rubber Sheets (Neoprene, EPDM, Silicone, Viton)	Sheets	Resistant to sealing & vibration	Gaskets, seals, and flooring

Engineering Plastic Components for Heavy Equipment and Cranes

We offer engineering plastic components for heavy equipment cranes and equipment. Our products are designed to replace traditional metal parts with lightweight, wear-resistant, and low-maintenance solutions. Diode Trading EST offers products that are ideal for service providers, crane rental companies, and heavy equipment operators. Our products are ideal for operators working in harsh environments, including sand, dust, high temperatures, and corrosive conditions. Our products are manufactured from top-notch engineered plastics.

Wear Pads

For telescopic crane boom sections



Telescopic Boom Wear Pads and Boom Liners

We offer sliding components installed between boom sections of mobile and hydraulic cranes that are known as telescopic boom wear pads and liners. Our products are made up of durable, high-performance cast nylon and other low-friction engineering plastics. Our rear pads help the boom extend smoothly while minimizing stick-slip movement. The telescopic boom wear pads and liners are a popular, reliable aftermarket alternative to OEM crane wear pads.

Advantages

- Controlled and smooth boom movement
- Steel-to-steel contact and reduced friction
- Dust-resistant, resistant to high temperatures and sand
- Custom machining available to drawing or sample

Polymer Crane Pulleys

Polymer Crane Pulleys are also known as crane sheaves or rope wheels. The rope wheels are used in crane boom heads, hoisting systems, and lift assemblies to guide and support wire ropes. Manufactured from cast nylon and oil-filled engineering polymer grades, these crane pulleys are a lightweight and corrosion-resistant alternative to traditional steel pulleys.

Polymer crane pulleys significantly reduce wire-rope wear, operate with lower noise and vibration, and require minimal maintenance. These crane pulleys work perfectly for cranes operating in desert, coastal, and industrial environments where corrosion and abrasive dust are common.

Key Advantages

- Extended wire-rope service life
- Quiet Operation
- Lightweight
- Weather and corrosion-resistant
- Custom groove profiles available

Cable, Rope & Hose Guide Fairleads/Rollers

Cable, hose guide rollers, rope, and fairleads are essential protective components that guide wire ropes and hydraulic hoses along crane booms and moving structures. Our cables are manufactured from UHMWPE, nylon, or polyurethane. These rollers prevent abrasion, snagging, and premature cable failures. Cables and ropes components are critical in high-temperature and sandy conditions.

Key Advantages

- Eliminates maintenance costs
- Resistant to impact and wear
- Protects hydraulic hoses and wire ropes
- Ideal for replacement applications

Plain Bearings & Plastic Bushings

Plastic bushings and plain bearings (heavy-duty) are mostly used in articulation points, crane pivot joints, and structural linkages. These plastic bushings are crafted from PTFE composites, cast nylon, and acetal (POM). These bushings provide grease-free operation, corrosion resistance, and load distribution.

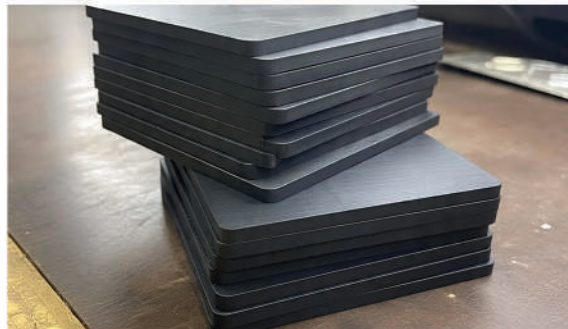
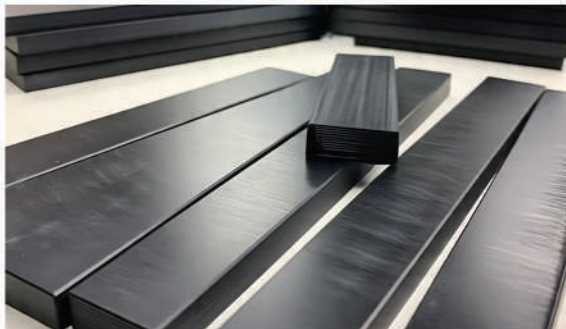
Engineering plastic bushings are ideal and work the best in dusty and abrasive conditions. These bushings significantly reduce maintenance requirements compared with traditional bronze or steel bushings.

Key Advantages

- Maintenance-free and self-lubricating
- Dust and corrosion-resistant
- Long service life
- Available in standard and customized

PE Shims

High-Density Plastic & PE Shims: Crafted for Load Support & Leveling



Primary Features

- Load-bearing capacity up to 20 tons and it depends on the thickness
- Designed from good quality PVC, Polyethylene (PE), and other types of plastics
- Recyclable and reusable
- Oil, chemical, and weather-resistant
- Plastic & PE Shims are available in various thicknesses, including 1mm, 2mm, 3mm, 5mm, 10mm, and custom sizes

Ideal for

- Equipment leveling and vibration dampening
- Machine mounting and baseplate shimming
- Brick and block leveling
- Construction

Material & Specifications

Material	Color	Thickness (mm)	Size (mm)	Load Capacity (tons)
PE / PVC	Black / Yellow / Red	1 / 3 / 5 / 10	100×100 / 150×150 / Custom	Up to 20 tons

Certificates and Compliance

- ISO 9001:2015 Certified
- REACH & RoHS Compliant
- Tested to ASTM & DIN Standards

Reasons to Choose Diode Trading EST

- Over 10 years of manufacturing experience
- Customized dimensions and logo printing available
- Competitive pricing with fast global delivery

PE Cutting Boards

PE Cutting Boards- Heavy Duty HDPE Chopping Surfaces for Industrial Use and Kitchen

Durable, Hygienic, and Knife-Friendly



Product Overview

Our PE (Polyethylene) Cutting Boards are crafted for hygiene and durability. Diode Trading EST manufactures PE cutting boards from high-density polyethylene (HDPE). Our PE cutting boards offer excellent resistance to impact, moisture, chemicals, and knife scarring. Our product is ideal for use in food processing, commercial kitchens, butcheries, and industrial environments.

Primary Features

- Material: 100% Food-Grade HDPE
- Thickness: 10mm to 50mm
- Size: Customizable from 300x200mm to 2000x1000mm
- Colors: Red, White, Green, Yellow, Blue, Brown
- Surface: Stain-resistant, easy to clean, and non-porous,

Primary Features

- Non-toxic and Hygienic: Resists bacterial growth, FDA & LFGB certified
- Knife-Friendly Surface: Reduces Maintenance and protects blade sharpness,
- Heavy-Duty & Long-Lasting: Never cracks, chips, warps, and absorbs moisture
- Dishwasher Safe & Easy to Sanitize: Can be sterilized using hot water or chlorine-based solutions
- Color-Coded Safety: Avoid cross-contamination (meat, fish, vegetables, dairy, etc.)
- Customization Available: Cut-to-size boards, CNC engraving, and logo printing

TECHNICAL DATA

Property	Specification
Density	0.95 g/cm ³
Temperature Range	-50°C to +80°C
Water Absorption	< 0.01%
Hardness (Shore D)	65-70
Impact Resistance	Excellent
Certifications	FDA, RoHS, REACH, SGS

Applications

- Commercial & Hotel Kitchens
- Butcher Shops & Meat Processing Plants
- Industrial Food Processing Lines
- Supermarkets, Fish Markets
- Laboratory & Chemical Use (non-reactive cutting surface)

Custom Option Available

We offer custom cutting boards to fit your exact requirements. Choose:

- Shape (square, rectangle, round, grooved edges)
- Thickness and color
- Logos, handles, or non-slip bases

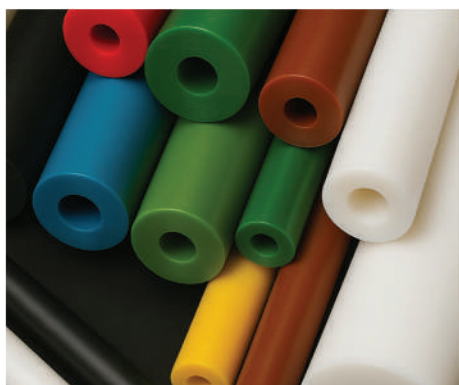
Why Choose Us?

- 10+ years of experience in plastic board manufacturing
- ISO 9001 certified facility
- In-house design and CNC machining
- Trusted by 500+ global clients

PTFE Products

PTFE Products (Sheets, Teflon Rods, Gaskets & Components in Saudi Arabia & the GCC)

PTFE or Polytetrafluoroethylene is a high-performance polymer known for its chemical resistance, non-stick surface, and very low friction. It is widely used in mechanical, industrial, electrical, and food-grade applications. Key properties of PTFE include non-stick properties, chemical inertness, high dielectric strength, a wide temperature range, UV & weather resistance, and a low friction coefficient.

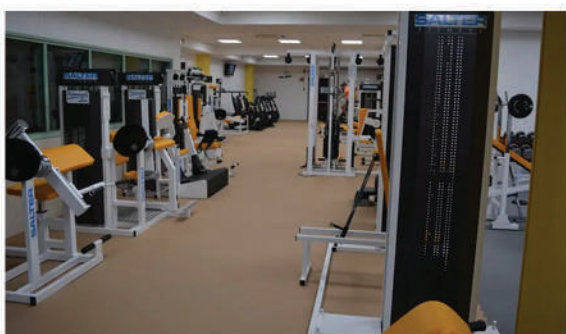


Material Testing and Performance (ASTM Standards)

PTFE Grade	Composition	Specification
Virgin PTFE (100%)	Pure unfilled PTFE	- Resistant to chemicals, low friction - Suitable for gaskets, insulators, and linings
15% Glass Filled PTFE	PTFE + 15% Glass Fiber	- Increased compressive strength - Better wear resistance - Used in piston rings and bearings
15% Graphite Filled PTFE	PTFE + 15% Graphite	- Enhanced thermal conductivity - Lower friction - Ideal for valve seats
15% Glass + 5% MOS2 Filled PTFE	PTFE + Glass + Molybdenum Disulfide	- Dynamic seals - Improved wear and load capacity - Suitable for mechanical and sliding components

Rubber Mats/ Rubber Tiles

Rubber Mats, also known as anti-slip rubber surfacing, interlocking rubber tiles, and other similar products, are crafted to withstand extreme temperatures, moisture, chemicals, and heavy foot traffic, delivering safety with long-lasting performance. Our rubber mats are slip-resistant, shock-absorbing, easy to maintain, and resistant to water and oil.



Type of Rubber Mats

- Rubber Flooring Rolls
- Anti-Fatigue Rubber Mats
- Entrance Rubber Mats
- Drainage Mats

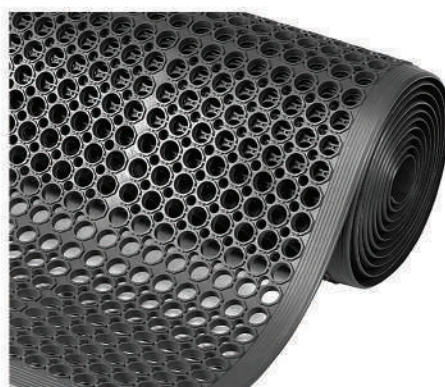
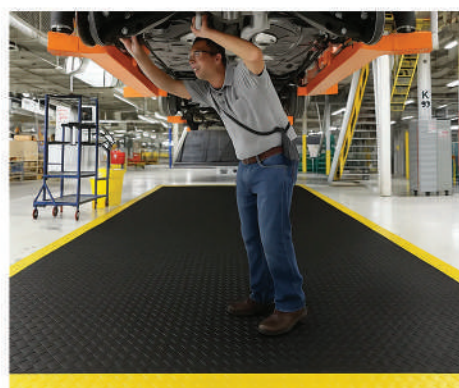
On the other hand, floor mats are used in both outdoor and indoor spaces. The floor matts are designed with different materials like vinyl, rubber, and polypropylene.

Ideal for

- Manufacturing Units
- Commercial Kitchen
- Schools
- Gyms
- Hospitals
- Residential Garages

Industrial Mats

Industrial mats or heavy-duty flooring solutions are designed to provide comfort, protection, safety, and cleanliness in workplaces and industrial plants. They are designed to withstand heavy foot traffic, harsh environments, oil spills, chemicals, machinery vibrations, and electrical hazards. Industrial mats offer ergonomic comfort for long-standing shifts, heavy-duty performance in industrial settings, proven slip resistance for safety, and a variety of materials and styles.



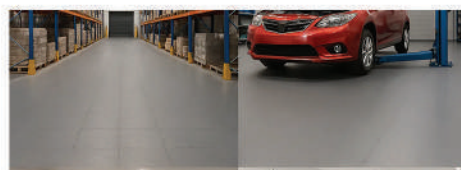
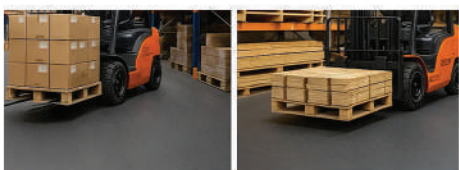
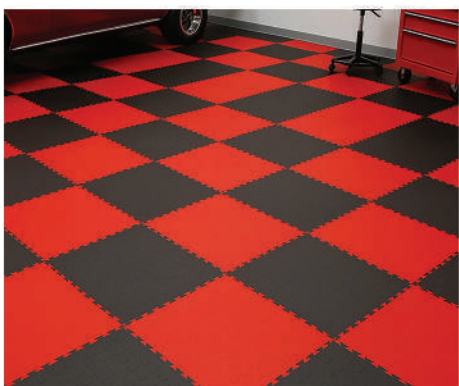
Product Specifications

Product Type	Material	Thickness	Surface	Best For
Diamond Plate Anti-Fatigue Mat	PVC/Nitrile	9–15 mm	Diamond Plate Pattern	Manufacturing, Automotive, Workshops
Rubber Drainage Mat	Natural Rubber	12–22 mm	Open-Hole Drainage	Kitchens, Food Processing, Wet Areas
Bubble Comfort Mat	Rubber	14 mm	Bubble Surface	Warehouses, Labs, Retail Counters
Chemical-Resistant Mat	Nitrile Rubber	10–12 mm	Smooth / Textured	Chemical Plants, Oil & Gas, Labs
Playground/Grass Mat	Rubber Compound	20–25 mm	Perforated / Grass-Friendly	Outdoor Areas, Schools, Playgrounds

Industrial PVC Interlocking Tiles

Heavy-Duty Industry PVC Interlocking Tiles for Warehouses, Workshops & ESD Facilities

Industrial PVC interlocking tiles are heavy-duty floor tiles made from high-quality PVC that lock together like puzzle pieces. They create a durable, firm, and seamless floor surface without the need for adhesives or complex installation. They are designed to withstand high-foot traffic, heavy loads, chemicals, oil spills, and industrial wear. Key features of industrial PVC interlocking tiles include fast, disruption-free installation, high chemical and mechanical resistance, R10 anti-slip for safety, great point load resistance, heat and sound insulation, and suitable for uneven or old subfloors.

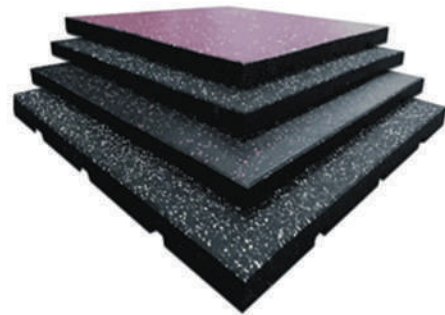


TECHNICAL SPECIFICATIONS

Parameter	Value
Tile dimensions	510.5 × 510.5 mm
Thickness	7 mm
Approx. weight	2.3 kg per tile
Material	Homogeneous 100% PVC, recyclable
Surface Finishes	Diamond, Coin, Leather, Skin (variant dependent)
Slip resistance	R10 (most designs)
Compressive strength	520 kg/cm ²

Premium Rubber Mats and Tiles – Sports and Gym Flooring

Our premium rubber mats and tiles are specially designed for fitness centers, sports facilities, and gyms. The mats and tiles are shock-absorbing surfaces that offer durability, safety, and provide comfort for high-intensity activities.

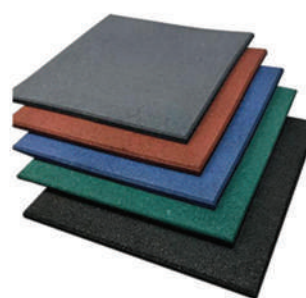
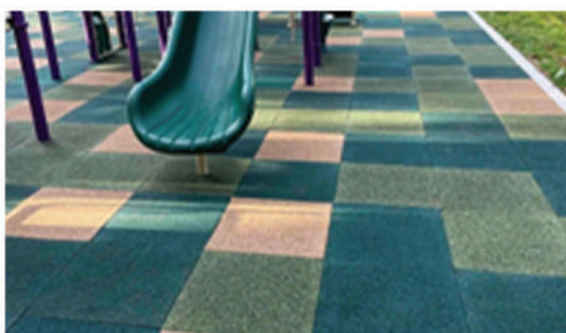


Premium Rubber Mats and Tiles are Ideal for

- School and University Gyms
- Yoga and Aerobics Studios
- Home Gyms
- Sports Complexes and Training Facilities
- Commercial Gyms and Fitness Clubs

Sports Flooring Products

Sports Flooring Products are also known as rubber sports tiles, acrylic sports flooring, slip-resistant sports mats, synthetic turf flooring, and multi-sport flooring systems. Our sports flooring products are durable and are capable of variety of rigorous activities. We have a wide range of sports flooring products. Let's explore.



Diode- Interlock

DIMENSIONS:

Size	50cm x 50cm		100cm x 100cm			
Thickness (mm)	10	15	20	25	30	35
Color variation	10-15% for pigmented tiles					
Standard Tolerances	Width	Length		Thickness		
	+/- 3 mm	+/- 3 mm		+/- 2 mm		

MATERIAL:

100% SBR granulate in 7 color options

85% SBR granulated + 15% EPDM granulated in 20+ color combinations

Gym Flooring Products

Also known as rubber gym mats, resilient flooring, gym matting, athletic flooring, and so on, Diode Trading EST offers a wide range of gym flooring products. Our products are affordable, dense, sturdy, easy to clean, and antistatic. Let's have a look at the distinct types of gym flooring products available to us.



Diode- Active Rolls

DIMENSIONS:

Size	1.2 x 10m
------	-----------

Thickness (mm)	6	8	10
----------------	---	---	----

Weight	6mm – 79 kg/roll	8mm – 106 kg/roll	10mm – 132 kg/roll
--------	------------------	-------------------	--------------------

Roll Area	12 m ²
-----------	-------------------

Standard Tolerances	Width	Length	Thickness
	+/- 3 mm	+/- 3 mm	+/- 2 mm

MATERIAL:

85% SBR granulated + 15% EPDM granulated in 20+ color combinations
--

color combinations	10-15% for pigmented
--------------------	----------------------

Rubber Wall Guard Protection System

Rubber wall guard protection systems are used to keep walls and surfaces free from damage from impact, abrasion, or heavy traffic. The budget-friendly and durable systems are used for commercial, industrial, and residential spaces.



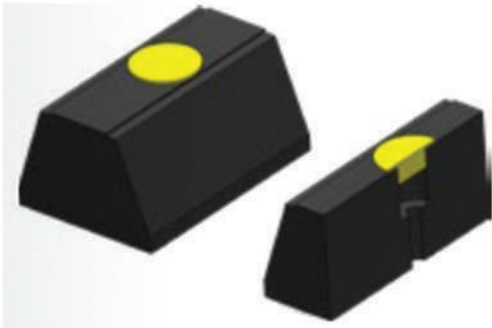
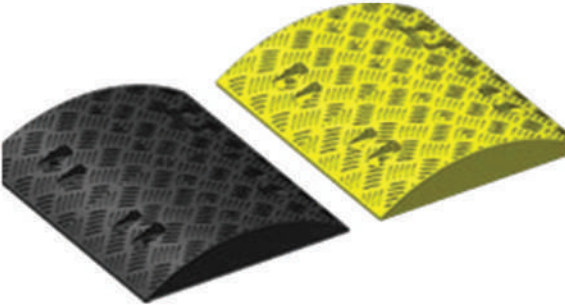
Uses of Rubber Wall Guard Protection System

- Prevents walls from damage from scrapes, dents, and scratches.
- Absorbs shocks from carts, trolleys, and other moving equipment.
- Prevents dents and wall damage.
- Offers an aesthetic look and maintains the structural integrity of walls by acting as a buffer in the high-traffic areas.



Building Protection System

We provide the best building protection systems, designed to protect buildings from wear, physical damage, and environmental impact. Let's check out our range of building protection systems.



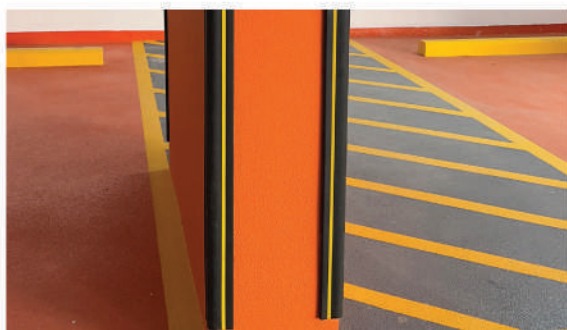
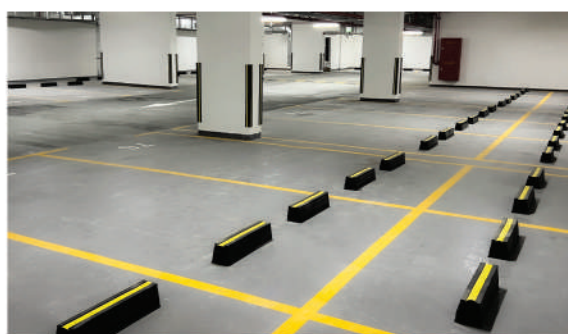
Corner Guards Type A

Corner Guards Type A are heavy-duty protective components designed to provide maximum visibility to drivers through black and yellow stripes in standard hazard warning colors

Sizes: Wing Size					
55 x 55	65 x 65	75 x 75	90 x 90	100 x 100	120 x 120
Standard Length					
1 meter			1.2 meter		

Parking Solution Products

Parking Solution Products are designed to improve efficiency, safety, and organization in parking areas. These solutions help avoid guide vehicles, accidents, protect infrastructure, and optimize space usage.



Parking Solution Products- Types

- Rubber Corner Guards
- Rubber Wall Guards
- Rubber Speed Hump
- Rubber Wheel Stopper
- Semi Solid
- Rubber Dock Bumpers
- Bollards
- Rubber Sports Inserts
- Anti-Vibration Pads
- Rubber Lining
- Construction Rubber Profiles
- Plain Elastomeric Bearing Pads
- Laminated Bearing Pads
- Sliding Bearing Pads

PE Dock Bumper

A PE Dock Bumper is an impact-resistant safety product designed to prevent structural damage and absorb shocks. Unlike traditional rubber bumpers, our PE Dock Bumpers offer durability, long service life, and UV resistance.

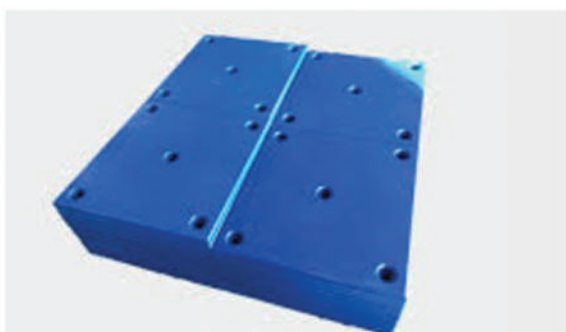


Features of PE Dock Bumper

- High Impact Resistance
- UV Stabilized Material
- Low Maintenance
- Easy to Maintain and Install
- Smooth Sliding Surface

UHMWPE Fender

Ultra-High Molecular Weight Polyethylene Fender, or UHMWPE, is a high-performance plastic pad or sheet used as a facing for marine fenders. The UHMWPE fenders have great strength and are abrasion-resistant. These fenders help protect fender systems and vessel hulls during berthing operations.



Uses of UHMWPE Fenders

- Offshore Platforms and Oil Terminals
- Port and Harbor Facilities
- Bridge Piers and Causeways
- Dry Docks and Shipyards
- Tug and Barge Operations

Cargo Grip Container

Cargo Grip Container is a liner system or anti-slip mat designed to enhance load stability during transportation. Our grip containers are made from composite materials and high-friction rubber. The Cargo Grip Containers are important for improving the safety of transportation and reducing cargo damage

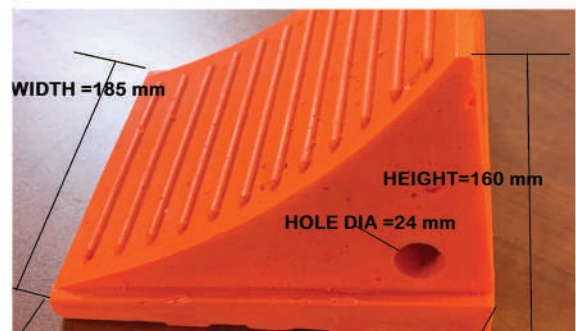


Uses of Cargo Grip Containers

- Ship Containers
- Railway Freight Operations
- Truck and Trailer Transport
- Warehouse and Distribution Centers
- Aerospace and Defense Logistics
- Construction and Heavy Equipment Transport

Wheel Chocks

Wheel Chocks are the blocks in a wedge shape that are placed against the tires of the vehicles to prevent accidental movement while parked, loading and unloading, or during maintenance. Our wheel chocks are made up of metal, polyurethane, or rubber. This product ensures that the vehicles remain stationary on slopes or uneven ground.



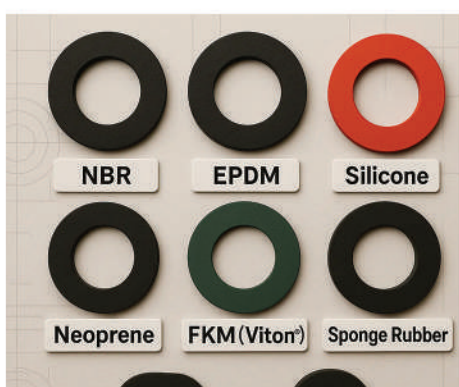
Uses of Wheel Chocks

- Commercial Vehicles and Trailers
- Construction Equipment
- Warehouse Operations
- Aircraft Ground Handling
- Mining and Heavy Industry

Gaskets & Seal Materials

Gaskets & Seal Materials: PTFE, CNAF Gaskets, and Rubber in Saudi Arabia and the GCC

Gaskets and seals are materials placed between two surfaces to prevent gases, leakage of fluids or pressure. They are used in flanges, pipelines, pumps, compressors, industrial equipment and automotive parts. PTFE gaskets and sealing products include PTSD sheet and Rod gaskets, PTFE ready-cut gaskets, expanded PTFE gaskets, PTFE envelope gaskets, winding strips and PTFE gasket tape and PTFE envelope bush and dimple sheets. Key features of gaskets and seal materials include chemical resistance, temperature resistance, FDA compliant, non-sticky surface, zero water absorption and operating range from -200°C to plus 260°C .



Material Testing and Performance (ASTM Standards)

Material	Primary Properties	Applications
Neoprene Rubber	Weather & oil resistant	HVAC, marine, and sealing panels
EPDM Rubber	Resistant to water and ozone	Water treatment, outdoor gaskets
Silicone Rubber	High-temperature	Food and electrical insulation
Viton (FKM)	Resistant to chemicals	Petrochemical & chemical industries
Coin Rubber / Corrugated Rubber	Anti-slip and flexible	Flooring, vibration pads
Electrical Grade Rubber	Dielectric insulation	Power and electrical systems

Rubber Support Insert for Chilled Water & HVAC Pipes

Rubber support inserts for chilled water & HVAC pipes are designed to support chilled water and HVAC pipeline systems. They are placed between the pipes and clamp to provide proper insulation, stability, and protection. Rubber support inserts are used for thermal insulation, load distribution, vibration & noise reduction, and prevents pipe damage. These inserts are used for HVAC supply and return lines, refrigeration piping, chilled water piping, and industrial and commercial and plumbing setups.



Material Testing and Performance (ASTM Standards)

SI No	Property	Test Method	Condition	Specification
1	Base Polymer	—	—	NR / SBR
2	Specific Gravity	ASTM D 1817	Before Ageing	$1.50 \pm 0.05 \text{ g/cm}^3$
3	Hardness	ASTM D 2240	Before Ageing	80–90 Shore A
4	Tensile Strength	ASTM D 412	Before Ageing	$\geq 65 \text{ Kg/cm}^2$
5	Elongation at Break	ASTM D 412B	Before Ageing	$\geq 175\%$

Mechanical & Industrial Solution

Mechanical & industrial solutions refer to a wide range of products, services, and engineering systems designed to support industrial operations, ensure safety, improve efficiency, and enhance equipment. These solutions help industries run smoothly by providing the right tools, machinery, components, and technical support. Our range of mechanical products includes pipes, flanges, and fittings, PVC pipes, carbon steel and stainless steel, gaskets and nuts, and industrial and pressure-rated flanges.

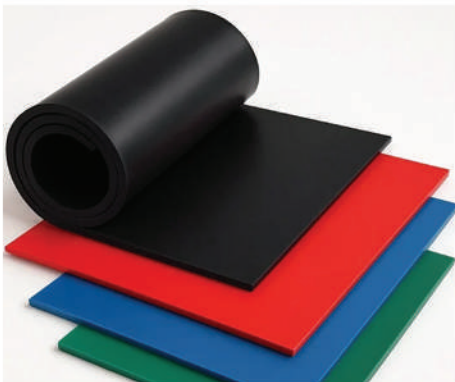


Applications and Features

Mechanical solutions can be applied to chemical processing plants, general fabrication, oil & gas lines, and water supply systems. Features include resistance to pressure and high temperature, and leak-proof performance in corrosive environments.

Rubber & Polyurethane Product

Rubber & Polyurethane (PU) products are specialized industrial components used for vibration control, sealing, protection, cushioning, ear-resistance, and mechanical support. These materials are chosen for their flexibility, durable, strength, ad ability to perform under tough industrial conditions.

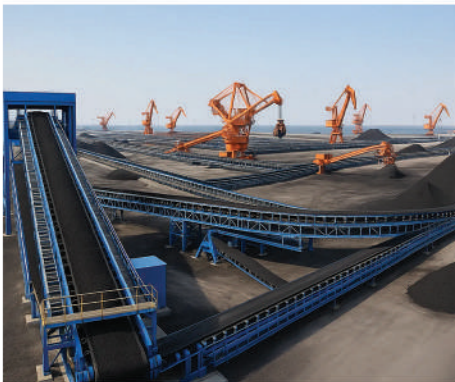


Rubber Sheet Product Range

Material Type	Key Features	Applications
Neoprene Rubber Sheet	Excellent oil, weather & abrasion resistance	Gaskets, seals, flooring, sound insulation
EPDM Rubber Sheet	Superior water & ozone resistance	Outdoor sealing, roofing, and HVAC applications
Silicone Rubber Sheet	High temperature & food-grade safe	Food processing, electrical insulation, pharma
Viton (FKM) Rubber Sheet	Excellent resistance to heat, fuels & chemicals	Oil & gas, chemical processing plants
Coin / Corrugated Rubber	Non-slip, flexible surface	Anti-vibration flooring, conveyor platforms
Electrical Grade Rubber	Insulating & dielectric properties	Power plants, electrical equipment

Rubber Conveyor Belts

Rubber conveyor belts are durable, flexible belts made of layers of rubber and fabric or steel, used to move materials from one place to another. These belts are a key component in conveyor systems used across industries for transporting bulk materials, products, goods and heavy loads efficiently. Benefits of choosing conveyor belts include heavy-duty performance for demanding applications, reduced life-cycle costs and downtime, efficient bulk handling, long-lasting dependability in harsh environments, and customized solutions for any industry or application.



Our Selection of Products

1. General Purpose (GP)

They are created with Polyester and Nylon mix (EP) or Nylon and Nylon mix (NN) fabrics. These general-purpose conveyor belts offer incredible tensile strength. With their brilliant flexibility and durability, they are ideal for heavy-duty tasks!

2. Heat-Resistant Conveyor Belts

Made to operate continuously at temperatures as high as 220°C, these belts employ heat-resistant rubber compounds that guard against structural damage, hardening, and cracking.

3. Fire-Resistant Conveyor Belts

These belts are designed to limit heat and stop it from spreading further. They adhere to global fire safety regulations.

4. Oil-Resistant Conveyor Belts

These belts guard against swelling, softening, or structural failure brought on by contact with vegetable, petroleum, or animal fats.

5. Impact-Resistant Conveyor Belts

Designed to withstand high shock loads brought on by large, abrasive, sharp objects falling from a height.

Industrial Rubber Lining Solutions

Industrial Rubber Lining Solutions refers to the process of applying a protective layer of rubber onto an external or internal surface or equipment used in industrial environments. Rubber lining solutions are used in industries including chemical processing, power plants, mining and minerals, water treatment, and fertilizer and steel plants.



Lining Material Selection

Lining Type	Temperature (°C)	Properties	Applications
Rubber (Natural /Butyl / Neoprene)	80–130	High chemical resistance, abrasion protection	Tanks, pipes, vessels
Polyurethane (PU)	100–120	Impact & wear resistance	Hoppers, slurry systems
FRP	100–150	Lightweight, non-corrosive	Tanks, Ducts, scrubbers
Polyurea	–30 to 150	Seamless, waterproof, flexible	Concrete protection, water tanks
Epoxy	–10 to 120	High adhesion, chemical resistant	Pipelines, Coatings, Tanks



Key Industries Served

Industry	Applications	Recommended Materials
Mining, Quarrying & Aggregates	Hoppers, chutes, slurry pipes, separators, sand plants, conveyor rollers	Soft natural rubber (40–70IRHD)
Chemicals & Pharmaceuticals	Storage tanks, vessels, valves, pumps, filters, agitators	Hard ebonite, neoprene, butyl, hypalon
Electroplating & Metal Finishing	Electroplating tanks, filters, shot-blast machines	Ebonite rubber, PVC, soft rubber
Food & Brewing	Mixers, coating pans, process vessels	Food-grade white rubber
Marine Industry	Fume scrubbers, dredging pipelines, cooling pipework	Ebonite (corrosion), soft rubber (wear)
Materials Handling	Chutes, hoppers, bins, conveyor rollers	Soft natural rubber
Power Generation	Cooling systems, coal handling plant	Natural rubber, EPDM
Water & Effluent Treatment	Vessels, agitators, dosing tanks, filters	Butyl, EPDM, neoprene, hypalon
Civil Engineering	Rollers, compactors, cement mixers	Soft natural rubber

Rubber Lining Materials & Technical Data

Neoprene80–85120Chemical, oil, water resistance

Type	Hardness (Shore A)	Max. Temperature(°C)	Typical Applications
Natural Soft	70–75	90	General abrasion resistance
Natural Hard	85–95	90	Acid and alkali tanks
Ebonite	100	80	Electroplating, chemical vessels
Open Ebonite	95–98	80	Chemical tanks
Nitrile	40–95	120	Hydrocarbon environments
Butyl	80	130–140	Strong acid resistance
EPDM	75	160–170	Steam and chemical resistance
Hypalon	80	140	UV and ozone resistance
Silicone	40–80	175	High temperature applications
Viton	90	300	Extreme chemical and thermal resistance

Our Clients





مؤسسة صمام الثنائي التجارية
DIODE TRADING EST.

Contact & Ordering Information

For product inquiries, customized orders, or bulk purchasing, please contact us:

☎ +966-510838213

✉ sales@diode.sa

🌐 www.diode.sa

Our technical sales team is available to assist you with product selection, custom configurations, and pricing.

