

Insulating Safety Mats



Rubber Sheets

Technical Specifications

Conforming IEC 61111, IS 15652, IS 5424, IS 5192, IS 2751





Descarga Eléctrica Seguridad aislante Esteras

مات س العازلة السلامة الكهربائية الصدمات

De choc électrique sécurité isolant Tapis









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 $\textbf{Vendor Data:} \ \underline{www.hic\text{-}india.com} \ | \ \textbf{Customers List:} \ \underline{www.universaldelhi.org} \ | \ \textbf{Catalogue:} \ \underline{www.rubber\text{-}steel\text{-}industrial\text{-}products.com}$













Specification of Rubber Mat Sheets

Classified under HS Code 4008





HIC <u>Universal Insulating Rubber Mats</u> are used as a dielectric carpet for electrical insulation to prevent shock around high voltage electrical panels, switchgear, control panels, switch board, and transformers superseding IEC 61111, IS 15652, IS 5425, ASTM D178 Quality Standards.

While, HIC <u>Universal Rubber Sheets</u> are used for jointing between flanges and/or similar joints subjected to pressures of water/air/low pressure steam up to 3.5 kg/cm2 in steel mills, fertilizer industries, chemical & pharmaceutical plants, food, etc produced in solid black colour vulcanized sheet possessing excellent physical properties, resistant to air, water, steam & compression set superseding IS 638, IS 5192, IS 2751, BS 2751, BS 2752, DIN 32676 quality standards.

About HIC

HIC International Co Inc, formed in
1988 manufacturing industrial rubber
and steel products ISO 9001 certified
producer of Safety insulating rubber
mat sheet, Conveyor Belt Idler
Pulley, Power Transmission belt
drive coupling, Hydraulic hose valve
quality exporters of HIC Universal
brand to industrial traders
distributors of USA, Australia, UAE,
Singapore, China, South Africa, UK,
Germany, Taiwan having
manufacturing factories in Delhi and
Ghaziabad UP of India.

Total Quality Management
principles are followed and
True Performance is thus
assured.













Why HIC Universal Electrical Insulating Mat?



Excellent Shock Protection

Providing Good Electrical Safety

High Voltage and Spark Resistant

Floor Insulation

Anti-slip Design

Prevents Injury to Workmen Near Panel-board

Why HIC Universal Rubber Sheet?



High Resistance

to Steam, Water, Heat, Chemicals, Oil and Weather

Excellent Compression Set

Apt for Gasket, Diaphragms and Strips

Friction-proof and Corrosion-proof Jointing

Versatile Sheeting Solution

Electrical <u>current safety</u> anti-static floor covering essentials insulating mats manufactured of electrical-resistant up to 66 kV AC and 240 V DC voltage elastomer blend of synthetic rubber and natural rubber without insertion having anti-skid aberration marks top surface or chequered finish, while cork rubber sheets produced of dimensionally stable flexible cork rubberized bonded with nitrile or neoprene rubber And <u>gaskets</u>, <u>diaphragm and flanges jointing leakage protection</u> rubber sheeting are manufactured of single or combination of relevant synthetic rubber compound blended with chemicals vulcanized in Rotocure as well as hydraulic press-cured shock-proof mats steam quality rubber sheets made in India by HIC Universal.

HIC Universal insulating mat and rubber sheets are <u>Original Choice</u> by **electrical-substation equipmentand storage** manufacturers in India, China, Belgium, UK, Italy, Yemen, Norway, Finland, Chile, Canada, Slovakia, Czech Rep., Venezuela, Trinidad, Colombia, Malaysia, Spain, Netherlands, Ecuador, Mexico USA North America, South Korea, Australia, Philippines, Saudi Arabia, Singapore and other Asian countries.













RANGE of Rubber Mat Sheets

Di-electric Carpet and Gaskets Jointing HIC Sheeting













Insulating Matting as per IEC

Electrical Insulating Mat as per IS 15652

Rubber Sheeting Roll

Rubberised Cork Sheet

Anti-skid Rubber Floor Mat

Ply Insertion Rubber Sheet

- Anti-skid Rubber Electrical Insulating Mat 50 KV current resistant 1m x 2m, 1.2m x 5m size up to 25mm Thick
- Neoprene Sheet 1m x 2m, 1.2m x 2.4m, 1.4m x 10m size up to 50mm Thick
- Nitrile 1m x 2m,1.2m x 2.4m, 1.4m x 10m size up to 50mm Thick
- Shot Blast 1m x 2m ,1.2m x 2.4m size 4 to 20mm Thick
- ❖ EPDM 1m x 2m, 1.2m x 2.4m, 1.4m x 10m size up to 25 mm Thick
- Silicone 1m x 2m, 1.2m x 2.4m, 1.4m x 10m size up to 25 mm Thick
- Viton 1.2m x 2.4m. 1.4m x 10m size 3 to 25 mm Thick
- Hypalon 1.2m x 2.4m, 1.4m x 10m size up to 25 mm Thick
- SBR 1m x 2m, 1.2m x 2.4m, 1.4m x 10m size till 25 mm Thick
- Natural 1m x 2m, 1.2m x 2.4m, 1.4m x 10m size up to 25 mm Thick
- ♦ Insertion White Sheet 1m x 2m size 3 to 25 mm Thick
- Cork Sheet 2ft x 3ft size up to 25 mm Thick
- ❖ Anti-slip Floor Mat Button Design 1.2m x 10m size 3 to 6 mm Thick
- Horse Mat & Cow Mats 4ft x 6ft size 15 to 25mm Thick
- Skirt-Board Rubber 200mm W x 25 mtr Long size 8 to 20mm Thick
- Rubber Lagging 1m x 2m, 1.2m x 2.4m, 1.4m x 10m size 6.5 to 25mm Thick













Switchboard Electrical Insulating Matting as per IEC 61111

10KV/Class 0, 20KV/Cl 1, 30KV/Cl 2, 40KV/Cl3, 50KV/Cl 4 Dielectric Carpet

<u>Electrical Insulating Matting</u> as per Swedish standards IEC 61111 used by manufacturers of X-ray equipment, power plant equipment, control switchboard producers being essential for protection against electrical shock of workers on electrical installations by floor covering with synthetic insulation dielectric mat.



<u>Size dimensions</u> Width and Length manufactured M 1 x 1, 1 x 5, 1 x 10, 1.2 x 5 meter.

Surface Finish dielectric matting cloth impression texture on Top and plain Bottom, Thickness MM 2 to 14, Colour Grey or Black as standard, also in Blue, as per dielectric Class:-

5,000V Proof Voltage, Class 0, 20,000V Withstand Voltage (dielectric), 1000V Max Operating matting 10,000V Proof Voltage, Class 1, 20,000V Withstand Voltage (dielectric), 7500V Max Operating matting 20,000V Proof Voltage, Class 2, 30,000V Withstand Voltage (dielectric), 17000V Max Operating matting 30,000V Proof Voltage, Class 3, 40,000V Withstand Voltage (dielectric), 26500V Max Operating matting 40,000V Proof Voltage, Class 4, 50,000V Withstand Voltage (dielectric), 36000V Max Operating matting













High Voltage Safety Electrical Insulating Mat as per IS 15652

10KV LT control Class A, 22KV HT/B class, 36KV /C class Mats Produced By HIC

<u>Electrical Insulation Matting</u> as per IS 15652 used by power plant equipment manufacturers of electrical switchboard equipment, electrical HT or LT control panel boards producers being essential for workmen safety from electrical shocks due to high voltage current by floor covering with synthetic insulation mat flame retardant quality for electrical purposes.



Size dimensions Width and Length manufactured M 1 x 2, 1.2 x 2.4, 1 x 10, 1.2×25 meter.

Surface Finish anti-skid aberration marks mat that is, rough surface without edges Top and plain Bottom, Colour Blue or Black as standard, also in Red, Thickness as per Class:-

10KV Ac Proof Voltage, 2 mm Thick, Class A, 30KV Di-electric Strength ac (rms), 240V dc (rms) mat

22KV Ac Proof Voltage, 2.5 mm Thick, Class B, 45KV Di-electric Strength ac (rms), 240V dc (rms) mat

36KV Ac Proof Voltage, 3 mm Thick, Class C, 65KV Di-electric Strength ac (rms), 240V dc (rms) mat

(f)











Substation Rubber Mat For Electrical Purpose as per IS 5424

15KV Voltage Tested 6.5mm and above Thick panel board Chequered Mats

Anti skid Rubber Mat for Electrical Purpose as per IS 5424 used by manufacturers of electrical substation equipment, electrical control panel boards, air conditioning plant producers being essential for life safety of workmen from electrical current leakages and short-circuit by floor covering with electrical insulating mat.



Size dimensions Width and Length manufactured M 1 x 2 (standard), 0.9 x 1.8 meters.

Mats Surface Finish anti skid chequered or fluted Top and plain Bottom, Mat Colour Black as standard, also in Red, Mats Thickness MM 6.5, 8, 10, 12, 15, 19, 25 Max.

Av. Tensile Strength (kg/sqcm) 50 kg, Av. Elongation at break 250%, Voltage Test at 15000V for 1 minute with No puncture, insulating mats Breakdown strength > 40,000 Volts, Water Absorption test < 4 mg/sqcm.

Neoprene Rubber Sheeting

Ozone, Gas, Oil and Fire Resistant Chloroprene CR Sheet

Chloroprene rubber sheeting CR compound neoprene rubber sheet gasket material used by manufacturers of defence rubber moulding, air space fuel tank, industrial fire management consultants, fly fishing waders, diving suits, chemical plant machinery producers for advantageous properties being good ozone resistant, impermeable to gas and liquids that acts as a barrier to pass through, resistance to fire and inorganic hydrocarbons, acids alkalis' fair resistance, good bonding to metal and resilience, thus regarded as multi-function rubber sheet diaphragm material for wide industrial sheeting applications.



Size dimensions w x I Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

Neoprene Sheeting Roll Thickness MM 1.5 up to 50, Shore A ± 5 <u>Hardness</u> 60, 65, Neoprene Sheeting Color Black, <u>Surface Finish of Neoprene sheet</u> smooth or cloth impression, <u>Specific</u> Gravity ± 5% g/cm³ 1.4, 1.45.

Neoprene sheeting Av. Tensile Strength MPa 9, Av. Elongation at break % 350, and Compression Set % at 70 deg. 45, Neoprene sheeting Temperature resistance range °C -30, + 100.













Nitrile Rubber Sheeting

Petroleum, Oil and Inorganic Chemicals Resistant NBR Sheet

Nitrile rubber sheeting NBR compound nitrile rubber sheet gasket material used by manufacturers of electrical transformers, chilled water pipeline insulation contractors, oil drilling contractors, food and beverage equipment producers, for advantageous properties of nitrile rubber sheet gasket for flanges sealing being petroleum oil and vegetable-animal oil resistant, impermeable to gas, resistance to inorganic chemicals products except chlorine, good resilience, thus regarded as oil resistant rubber sheet seal material for wide industrial gasket applications.



Size dimensions w x I Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

Nitrile Sheeting Thickness MM 1.5 up to 50, Shore A ± 5 Hardness 60, 65, Nitrile Sheeting Color Black, Off-White, Red Surface Finish of Nitrile Sheet smooth or one side cloth impression, 1 ply nylon fabric insertion, 2 ply cloth reinforced, Specific Gravity ± 5% g/cm³ 1.45, 1.50.

Nitrile Sheet Av. Tensile Strength MPa 7, Av. Elongation at break % 300, Compression Set % at 70 deg. 30, Nitrile Sheeting Temperature resistance range °C -30, + 110, Nitrile Sheeting Change in Volume% when dipped in ASTM oil no.3 at 70°C for 72 hrs.15.

Viton Rubber Sheeting

Biodiesel Fuel, Chemical, Flame, Ultra Heat Resistant till 300°C FKM Sheet

Viton rubber sheeting FKM compound fluoro elastomer rubber sheet gasket material used by manufacturers of moulded rubber products for defence and aviation, petroleum refinery contractors, alkalies chemicals plant producers, for advantageous properties of viton rubber sheet gaskets for flanges sealing being excellent resistance to biodiesel fuel based on animal fat or vegetable oil and self-extinguishing flame resistant, lubricating oils and petrol resistant, impermeable to gas, resistance to ozone and oxidation, thus regarded as chemical resistant and ultra-heat resistant for long term heat exposure without brittleness rubber-sheet packing material for wide industrial seal applications.



<u>Size dimensions</u> w x | Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

<u>Viton Sheeting Thickness</u> MM 1.0 up to 25, Shore A ± 5 <u>Hardness</u>70, <u>Viton Sheeting Color</u> Black, <u>Surface Finish of Viton Sheeting</u> smooth or one side cloth impression, <u>FKM Specific Gravity</u> ± 5% g/cm³ 1.95. <u>Viton Sheeting Av. Tensile Strength</u> MPa 7, <u>Av. Elongation</u> at break % 200, <u>Compression Set %</u> at 70 deg. 45, <u>Viton Sheeting Temperature</u> resistance range °C -30, + 300.













EPDM Rubber Sheeting

Outdoor Weather, Steam, Acid & Corrosive Chemicals Resistant EPDM Sheet

EPDM rubber sheeting ethylene propylene diene monomer compound EPDM rubber sheet roofing material used by manufacturers of roofing materials, drinking water pipeline contractors, marine flooring rubbers EPDM sheet roll type producers, for advantageous properties being resistant to outdoor weather, fresh and sea water, excellent resistance to ultra violet, aging-ozone and oxidation, good resistance to steam, acids and many corrosive chemicals, impermeable to gas, thus regarded as all-weather resistant rubber sheet strip material for outdoor and wide industrial packing applications.



<u>Size dimensions</u> w x | Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

<u>EPDM Sheet Thickness MM 1.0 up to 50, Shore A ± 5 Hardness 65, 70 EPDM Color Black, Off-White, Surface Finish of EPDM Sheets smooth or one side cloth impression, EPDM Sheeting Specific Gravity ± 5% g/cm³ 1.25.</u>

<u>EPDM Sheet Av. Tensile Strength</u> MPa 6.5, <u>Av. Elongation</u> at break % 250, <u>Compression Set %</u> at 70 deg. 25, <u>EPDM Sheet Temperature</u> resistance range °C -45, + 140.

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Silicone Rubber Sheeting

Hot Temp. >200°C Resistant, Oxidation Apt for Pharma and FDA Food MQ Sheet

Silicone rubber sheeting MQ compound physiologically inert rubber sheet sealing material food grade used by manufacturers of pharmaceutical machinery, electrical insulating board, building construction contractors, food and medical equipment producers, for advantageous properties being resistant to ozone, oxidation, UV. corona discharge and cosmic radiation, excellent resistance to dry air hot temperature above 200 deg. C intermittent, good electrical insulation with dielectric strength 500 V/mil, good resistance to animal and vegetable oils including diluted acids, displays low smoke toxicity and low in flammability, thus regarded as thermally stable super heat resistant rubber sheet packing material for medical equipment, food and drink machines industry and electronics industries wide sealing applications.



<u>Size dimensions</u> w x | Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

<u>Silicone Sheet Thickness MM 1.0 up to 25, Shore A ± 5 Hardness 50, 60 Silicone Sheeting Color Red, Blue, Black, Translucent Off-White (Food Grade Quality), Surface Finish of Silicone Sheet smooth or one side cloth impression, Silicone Sheeting Specific Gravity ± 5% g/cm³ 1.20.</u>

<u>Silicone Sheet Av. Tensile Strength</u> MPa 8, <u>Av. Elongation</u> at break % 250, <u>Compression Set %</u> at 70 deg.40, <u>Silicone Sheeting Temperature</u> resistance range °C -70, + 230.

Styrene Butadiene Rubber SBR Sheeting

High Abrasion, Ageing, Hot Water Resistant till 120°C SBR Sheet

SBR rubber sheeting styrene butadiene compound abrasion resistant sheet gasket and sealing material used by manufacturers of mining equipment, water sewage manhole, tile making machinery, shot blasting equipment producers, for advantageous properties being resistant to high abrasion and temperature, excellent resistance to ageing superior to RMA natural, fair resistance to many inorganic chemical products, thus regarded as abrasion and hot water resistant sealing material for mining industry and wide industrial gasket and sealing applications.



Size dimensions w x I Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.











<u>SBR Sheeting Thickness</u> MM 1.5 up to 40, Shore A ± 5 <u>Hardness</u> 65, 70 <u>SBR Sheet Color</u> Black, Red, Off-White <u>Surface Finish of SBR Sheeting</u> smooth or one side cloth impression, <u>SBR Sheet Specific Gravity</u> ± 5% g/cm³ 1.20.

SBR Sheet Av. Tensile Strength MPa 8, Av. Elongation at break % 350, Compression Set % at 70 deg. 35, SBR Sheeting Temperature resistance range °C -40, + 110.

Shot Blasting Natural Rubber Sheeting

Impact, Abrasion & Water Resistant RMA Sheet

Natural rubber sheeting NR compound impact-resistant rubber sheet packing material used by manufacturers of aggregate crusher plant, shooting range construction engineering consultants, shot blasting machine producers, for advantageous properties being excellent resistant to high impact and abrasion, good resistance to water, low compression set and outstanding resilience, thus regarded as general purpose abrasion resistant water-proof sealing material for mine crushers and wide industrial packing applications.



Size dimensions w x I Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

Natural RMA Sheeting Thickness MM 1.5 up to 50, Shore A ± 5 Hardness 5, 50, 60, 65 Natural RMA Sheeting Color Black, Red, Off-White, Surface Finish of Natural Sheeting smooth or one side cloth impression, Natural RMA Sheeting Specific Gravity ± 5% g/cm³ 1.40.

Natural RMA Sheeting Av. Tensile Strength MPa 8, 12, 15, 17 Av. Elongation at break % 400, 450, 500, Compression Set % at 70 deg. 30, RMA Natural Sheet Temperature resistance range °C -25, + 65.













Insertion Rubber NR/SBR Sheeting

Steam Pressure & Tear Resistant Flange Gasket Sealing Cloth Ply Sheet

Cloth Inserted Ply rubber sheeting SBR Natural rubber blended compound steam resistant rubber sheet gaskets for flanges sealing used by manufacturers of strip curtains, flange gasket material producers, for advantageous properties being excellent resistant to tear and steam pressure, good dimensional stability and superb resilience, thus regarded as steam quality tear resistant flange rubber gasket for wide industrial diaphragm sheeting applications.



Size dimensions w x | Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

<u>Cloth Inserted Sheet Thickness</u> MM 1.5 up to 20, Shore A Hardness ± 5 55, 60, 65, 70 <u>Inserted Sheet Colour</u> Black, Red, Off-White, <u>Surface Finish of inserted sheet</u> smooth or one side cloth impression, Ply Insertion Sheeting Specific Gravity ± 5% g/cm³ 1.40.

Nylon Inserted Diaphragm Sheeting Av. Tensile Strength MPa 8, 12, 15, 17 Av. Elongation at break % 400, 450, 500 Compression Set % at 70 deg. 30, Cloth Inserted Sheet Temperature resistance range °C -30, +70.

Butyl Rubber Sheeting

Phosphoric Acid, Gas, Caustic Soda & Alkali Resistant IIR Sheet

Butyl rubber sheeting IIR compound vibration damping rubber lining material used by manufacturers of smelting equipment, alumina refinery consultants, tank linings coatings contractors, gas pipeline producers, for advantageous properties being excellent resistance to phosphoric acid, caustic soda as well as aqueous acid (s), superb resistance to sunlight, oxidation and ozone, thus regarded as anti acid and alkali resistant corrosion sealing sheeting for chemicals industry and wide industrial applications.



Size dimensions w x | Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

<u>Butyl lining Thickness</u> MM 1.5 up to 15, Shore A ± 5 <u>Hardness</u> 55, 60, 65 <u>Butyl Sheeting</u> <u>Color Black, Surface Finish of Butyl lining</u> smooth or one side cloth impression, <u>Butyl Sheet Specific</u> <u>Gravity</u> ± 5% g/cm³ 1.35.

<u>Butyl Rubber Roll Av. Tensile Strength</u> MPa 6, <u>Av. Elongation</u> at break % 250, <u>Compression Set %</u> at 70 deg. 40, <u>Vibration Damping Butyl Sheet Temperature</u> resistance range °C -40, + 125.













Cork Sheet Nitrile or Neoprene Rubberized

Thermal Insulator apt for Power Transformer & Automobile Rubber Bonded Cork

Rubberized Cork sheet Nitrile rubber bonded acoustic insulation rubber sheet gasket material used by manufacturers of automobile engine head, power transformer, water piping contractors, electrical switchgears producers, for advantageous properties being excellent resistance to oil that can compress without lateral spread, superb dimensional stability that can recover up to 80% of its original thickness, oxidation and ozone, thus regarded as non-swelling thermal insulator cork sheet for electrical industry and wide automotive as well as thermal insulation applications.



Size dimensions w x I Meter 0.6 x 0.9.

<u>Rubberized Cork Sheet Thickness</u> MM 3 up to 25, Cork Sheet Rubber Bonded Shore A ± 5 <u>Hardness</u> 50, 70, 80, Compressibility at 28 Kg/cm² 45 to 60, 35 to 50, 15 to 25.

Rubber Bonded Cork Gasket Sheet Av. Tensile Strength MPa 6, 12, 19 Volume change after immersion in ASTM Oil No.3 for 70 hours at 100°C Temp.% 40, 25, 15, Compression Set % at 70 deg. 80, 85, 90, Recovery % Min. 80 Dimensional change % Max.1.5, Rubberized Cork Sheets Temperature resistance range °C -30, +110.

Hypalon Rubber Sheeting

Inorganic Chemicals & Corrosive Acid Resistant CSM Sheet

Hypalon rubber sheeting CSM compound chemical resistant rubber sheet seal material used by manufacturers of chemical acid plant, acid waste drainage piping contractors, automotive chemicals producers, for advantageous properties being excellent resistance to most inorganic dilute or concentrated acids or chemicals at very low and high temperatures, superb resistance to ozone and oxygen, good dielectric and low moisture absorbing features, moderate oil and grease resistant, thus regarded as anti-acid and corrosive chemical resistant rubber sheet for chemicals industry and wide industrial applications.



<u>Size dimensions</u> w x | Meter 1 x 2, 1.2 x 2.4 (standard), 1.2 x 5, 1.2 x 10, 1.4 x 5, 1.4 x 10.

<u>Hypalon Sheet Thickness</u> MM 1 up to 12, Hypalon Rubber Gasket Sheet Shore A ± 5 <u>Hardness</u> 60, 65 <u>Hypalon Sheet Gasket Color</u> Black, <u>Surface Finish of Hypalon Seal Material</u> smooth or one side cloth impression, <u>Specific Gravity</u> ± 5% g/cm³ 1.40.











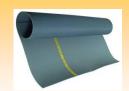


<u>Hypalon Gasket Packing Av. Tensile Strength MPa 10, Av. Elongation at break % 350, Compression Set % at 70 deg. 40, Hypalon Sheeting Temperature resistance range °C -60, +150.</u>

Order Quantity Minimums

Numbers or Square meter length of HIC Rubber Matting Sheet Supplied

<u>Electrical Insulating Mats</u>, High Voltage Safety Insulating Mats, Substation Flooring Electrical Mats, Switchboard Dielectric Matting, <u>Minimum order</u> quantity in one rubber mat quality variety type Thickness sizes or single size NUMBERS 10 Or SQ. METERS 20.



Packed in rolls in sea-worthy jute or HDPE covered.

Rubber Sheet <u>minimum order</u> quantity in single thickness size and rubber grade NUMBERS 06 or SQ. METERS 12.



 Vendor Data:
 www.hic-india.com
 Customers List:
 www.universaldelhi.org
 Catalogue:
 www.rubber-steel-industrial-products.com













Nomenclature of Insulating Matting as per IEC 61111

Thickness of Dielectric Carpet, Size of Fine Ribbed Rubber Mat: Technical Data



	ELECTRICAL INSULATING MATTING TECHNICAL SPECIFICATIONS: MADE IN INDIA * HIC								
Thickness of Electrical Insulation Matting	IEC 61111:2009 / BS EN 61111:2009 Specification	Dielectric Test Voltage When New	Working Voltage (Nominal Maximum Use)	Surface Proof Test Voltage	Weight (Approx.) Kilograms per Square Meter #				
3mm		10kV (10,000V)	1,000V	5,000V	3.70 kg/m²				
3.5mm	Class 1	20kV (20,000V)	7,500V	10,000V	6.10 kg/m ²				
4.0mm , 6mm	Class 2	30kV (30,000V)	17,000V	20,000V	5.00 kg/m², 7.5 kg/m²				
4.0mm , 6mm	Class 3	40kV (40,000V)	26,500V	30,000V	5.0 kg/m² , 7.5 kg/m²				
4.0mm , 6mm	Class 4	50kV (50,000V)	36,000V	40,000V	7.0 kg/m² , 10.5 kg/m²				

<u>Standard Sizes</u> of Heavy Duty Switchboard Mats manufactured (Width x Length): 914mm (3ft) x 1.8meter (6ft), 1000mm (1meter) x 2m, 1m x 5m, 1m x 10m, 1.2m x 2m, 1.2m x 5m and other sizes on request. Other thickness's also produced.

Color of mat: Black or Grey / coding color as per Class for easy identification.

- **Electrical-safety mats are not intended to be used as "Hot" Rail Blanket and, should be borne in mind, "Not to Place Insulating Matting in Service or Use with Cracks or Punctures" as can be dangerous in the event of electrical current leakage.
- *** <u>Third Party Inspection</u> from an independently accredited India Test Facility, like by **ERDA, CPRI, or** other Govt. approved laboratory test certificate can be provided for electrical matting on Extra charges to be directly reimbursed by buyer.













Nomenclature of Electrical Insulating Mats as per IS 15652

Thickness of Anti-slip Aberration Marks Rubber Mat, Size of High Voltage Insulation Mat: Technical Data



	ELECTRICAL INSULATING MAT TECHNICAL SPECIFICATIONS: MADE IN INDIA * HIC						
Thickness of Safety Rubber Matting	IS 15652 / 2006 Specification	Dielectric Test Voltage When New	Working Voltage (Nominal Maximum Use)	Surface Proof Test Voltage	Weight (Approx.) Kilograms per Square Meter #		
2mm	Class A	30kV (30,000V)	3,300V	10,000V	2.90 kg/m ²		
2.5mm	Class B	45kV (45,000V)	11,000V	22,000V	3.60 kg/m ²		
3mm	Class C	65kV (65,000V)	33,000V	36,000V	4.70 kg/m ²		
3.5mm * Omitted from IS 15652	Class D	110kV (110,000V)	66,000V	70,000V	-		

HIC Quality Testing Also Features:-

- High Electrical Insulation Resistance 10,00,000 Mega Ohms when measured with 500 v
 Megger
- Fire Retardant < 5 seconds blue flame extinguished when tested after removal
- Leakage Current to 10 MA at 65 kV tested 100% Shockproof high voltage resistant mat

<u>Standard Sizes</u> of Switchboard Matting manufactured (Width x Length): 900mm (3ft) x 1.8meter (6ft), 1000mm (1meter) x 2m, 1m x 5m, 1m x 10m, 1m x 20m, 1.2m x 2m, 1.2m x 5m, 1.2m x 10m and other sizes on request.

For special outdoor application use, high voltage insulation mats can also be supplied with higher thickness subject to single maximum roll length of 5m / 10 meters.

<u>Color</u> of mat: Black / Blue / Red with Marking as to Roll No., Class, Manufacturing Date, Manufacturer's Identity i.e. HIC Universal.

*** <u>Third Party Inspection</u> from an independently accredited India Test Facility, like by <u>ERDA, CPRI, or other Govt. approved laboratory</u> test certificate can be provided for electrical matting on Extra charges to be directly reimbursed by buyer.













Nomenclature of Switchboard Matting as per ASTM D178

Thickness of Corrugated Rubber Mat, Size of Non Conductive Mats: Technical Data



	ELECTRICAL SWITCHBOARD MATTING TECHNICAL SPECIFICATIONS: MADE IN INDIA * HIC						
Thickness of Safety Rubber Mat	ASTM D178-01 TYPE I / ANSI JS.7 Specification	Dielectric Test Voltage When New	Working Voltage (Nominal Maximum Use)	Surface Proof Test Voltage	Weight (Approx.) Kilograms per Square Meter #		
4.5mm (3/16")	Class 1	20kV (20,000V)	7,500V	10,000V	6.80 kg/m ²		
6mm (1/4")	Class 2	30kV (30,000V)	17,000V	20,000V	8.50 kg/m ²		
9mm (3/8")	Class 3	40kV (40,000V)	26,500V	30,000V	9.20 kg/m ²		
12mm (1/2")	Class 4	50kV (50,000V)	36,000V	40,000V	9.50 kg/m ²		

Standard Sizes of Switchboard Matting manufactured (Width x Length): 900mm (36inch) x 9meter (30ft), 1000mm (1meter) x

1m, 1m x 2m, 1.2m x 2m and other sizes on request.

<u>Color</u> of mat: Black / Yellow coding







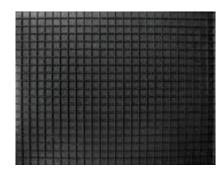






Nomenclature of High Voltage Rubber Mat as per IS 5424

Thickness of Chequered Electrical Rubber Mat, Size of Insulating Mats: Technical Data



	HIGH VOLTAGE ELECTRICAL RUBBER MAT TECHNICAL SPECIFICATIONS: MADE IN INDIA * HIC					
Thickness of Insulation Rubber Mat	IS 5424:1969 / BS:921 Specification	Dielectric Test Voltage When New	Working Voltage (Nominal Maximum Use)	Surface Proof Test Voltage	Weight (Approx.) Kilograms / Square Meter per 1MM Thick #	
6mm, 8mm, 10mm, 12mm, 15mm, 19mm, 25mm	May be substituted with Class 0 of IEC 61111 and Class A of IS 15652	>40kV (40,000V)	3,300V	15,000V	1.00 kg/m²	

<u>Standard Sizes</u> of Electrical Insulating Floor Mats manufactured (Width x Length): 1000mm (1meter) x 2m normal standard dimension, 900mm (3ft) x 1.8meter (6ft), 1.2m x 2.4m.

<u>Color</u> of mat: Black / Red with Marking as to Roll No., Manufacturer's Identity i.e. HIC Universal.











Thickness, Size for Gasket Material without Fabric & Cloth Insertion Sheeting for Diaphragms: Technical Data



Rubber Sheet Gasket Material	Thickness (mm)	Size (width x length)	Color and Finish	Shore Hardness 'A' ±5	Specific Gravity gm/cm ³ ±5%	Av. Tensile A Strength Elor	erties v. ngation %)	Compression Set % at 70°C for 22 hrs. AND Temp. Resistance
	Fire, O	zone, Gas, Oil	Resistant Multi-	<i>function</i> Chlor	oprene Rubber Sl	neeting Diaphragm m	aterial	
NEOPRENE (CR)	1.5 to 50	1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	BLACK Smooth(stan dard) or Cloth Impression (1 side or Both) Reinforced Nylon ply	60 to 75	1.4 (100% CR) 1.45 (65% CR)	6, 7, 10,12, 15	350	45 (-)30°C (+)100°C
Petro NITRILE	oleum, Vegetal	ble & Animal (1 or 2 (optional) Dil Resistant, Imp BLACK, RED, OFF-WHITE	permeable to 0	Gas Acrylo nitrile	Butadiene Rubber Sh	eeting Sea	I material
(NBR)		1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	Smooth(stan dard) or Cloth Impression (1 side or Both) Reinforced Nylon ply 1 or 2 (optional)		(100% NBR) 1.50 (65% NBR)			(-)30°C (+)110°C













Rubber Material	Thickness (mm)	Size	Color, Finish	Shore Hardness	Specific Gravity	Tensile Strength	Elongation %	Comp % & Temp	
Chemical, Flame, Ultra Heat Resistant Fluoro Elastomer Rubber Sheeting Gasket and Washer material									
VITON (FKM)	1.0 to 25	1 m x 2 m 1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	BLACK Smooth(standard) or Cloth Impression (1 side)	70 to 75	1.95	7	200	45 (-)30°C (+)300°C	
Corro	osive Chemicals,	, Steam, Outd	oor Weather Res	i stant Ethyler	ne Propylene Rubl	ber Sheetin	g Roofing and Pack	ing material	
EPDM	1.0 to 50	1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	BLACK, OFF-WHITE Smooth(standard) or Cloth Impression (1 side)	65, 70	1.25	6.5	250	25 (-)45°C (+)140°C	
	Thermally Stabl	le, Oxidation &	& Hot Temperatu	ıre Resistant F	Food Grade MQ R	ubber Shee	eting Pharma Seal m	naterial	
SILICONE (MQ)	1.0 to 25	1 m x 2 m 1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	RED, BLUE, BLACK, TRANSLUCEN T (OFF- WHITE) Food quality as per FDA Smooth(stan dard) or Cloth Impression (1 side)	50,60	1.20	8	250	40 (-)70°C (+)230°C	

 $\textbf{Vendor Data:} \ \underline{www.hic\text{-}india.com} \ | \ \textbf{Customers List:} \ \underline{www.universaldelhi.org} \ | \ \textbf{Catalogue:} \ \underline{www.rubber\text{-}steel\text{-}industrial\text{-}products.com}$













Rubber Material	Thickness (mm)	Size	Color, Finish	Shore Hardness	Specific Gravity	Tensile Strength	Elongation %	Comp % & Temp	
Ageing, Hot Water, Abrasion Resistant Styrene Butadiene Rubber Sheeting Flange Gasket and Diaphragm material									
SBR (Commercial sbr1502)	1.5 to 40	1mx 2m 1m x 5m 1.2mx2.4 m 1.2mx 10m	BLACK, RED, OFF-WHITE Smooth(stan dard) or Cloth Impression (1 side or Both) Nylon Cloth Insertion ply 1 or 2 (optional)	65, 70	1.20	8	350	35 (-)40°C (+)110°C	
Imp	act, Water & A	brasion Resist	ant RMA Genero	al Purpose Pur	e Gum Rubber Sh	eet Flange	Packing and Stopper	r material	
SHOT BLASTING (NATURAL)	1.5 to 50	1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	BLACK, RED, OFF-WHITE Smooth(stan dard) or Cloth Impression (1 side or Both) Nylon or Cotton Fabric Inserted ply 1 or 2 (optional)	45, 50, 60, 65	1.40	8, 12, 15, 17	400, 450, 500	30 (-)25°C (+)65°C	
	Transform	ner Oil Resista	nt, Thermal & Ad	coustic Insulat	ion Rubberised Co	ork Nitrile S	Sheet Gasket materia	al	
CORK RUBBER (NITRILE)*	3.0 to 25	0.6 m x 0.9 m	NATURAL BROWN, BLACK Smooth(stan dard)	50, 70, 80	Vol. Change% ASTM oil dipped at 100°C 40, 25, 15	6, 12, 19	_	80, 85, 90 (-)30°C (+)110°C	

 $\textbf{Vendor Data:} \ \underline{www.hic\text{-}india.com} \ | \ \textbf{Customers List:} \ \underline{www.universaldelhi.org} \ | \ \textbf{Catalogue:} \ \underline{www.rubber\text{-}steel\text{-}industrial\text{-}products.com}$













Rubber Material	Thickness (mm)	Size	Color, Finish	Shore Hardness	Specific Gravity	Tensile Strength	Elongation %	Comp % & Temp
	Phosphoric Acid, Alkali, Caustic Soda Resistant Butyl Rubber Sheet Lining and Corrosion Sealing material							
BUTYL (IIR)	1.5 to 15	1mx 2m 1m x 5m 1.2mx2.4 m 1.2mx10m	BLACK Smooth(standard) or Cloth Impression (1 side)	55, 60, 65	1.35	6	250	40 (-)40°C (+)125°C
	Corro	sive Acid & Inc	organic Chemical	's Resistant CS	M Rubber Sheeti	ng Gasket a	and Seal material	
HYPALON (CSM)	1.0 to 12	1 m x 2 m 1 m x 5 m 1.2 m x 2.4 m 1.2 m x 10 m	BLACK Smooth(standard) or Cloth Impression (1 side)	60,65	1.40	10	350	40 (-)60°C (+)150°C

Manufacturing Tolerances shall be deemed to be acceptable by buyers'. Size Tol. $\pm 1\%$; Thickness Tol. $\pm 2.5\%$; S.G. Tol. $\pm 10\%$

Commercial Grade SBR/NR rubber with Cloth Insertion for dimensional stability & resistant to steam pressure And without fabric reinforcement in different specific gravities quality produced on bulk order quantities.

Neoprene Rubber Bonded Cork Sheet is also produced on request.

* Manufacture of Neoprene Rubber Cords, Silicon Rubber Cords also undertaken.

Disclaimer: Information's, written and verbal are provided by HIC, relative to its products which it determines to be reliable & no liabilities of whatsoever nature in regards to its uses. The purchaser of UNIVERSAL brand industrial products should determine for itself the suitability of such products.













Selection of Rubber Sheet

Gasket, Seal, Floor Covering, Flange Jointing HIC Sheeting Guide *

Follow simple steps for as to How to select rubber sheet, insulating mat and insertion sheeting for gasket, seal, floor covering, flange jointing materials:-

Step 1 of HIC Universal rubber sheet Selection:

Elastomer Rubber Compound Grade of sheeting selection - Rubber compounded sheet material grade be wisely selected considering exposure to weather conditions, heat-temperature degrees, oils, fuels, chemicals, etc. to sustain without failure else may cause leakage or other serious damages to gaskets or seals if inappropriate sheeting grade is chosen.

Step 2 of HIC Universal sheeting Selection:

Thickness of sheeting choice - Choose minimum thickness of 1.5 mm and above of rubber-sheet to be die-cut to made to gaskets or seal or diaphragm material. Try to accommodate sheeting of little higher thickness for better service performance for a longer period.

Step 3 of HIC Universal sheeting Selection:

- Sizes standard width and length of rubber sheets manufactured are 1m W x 2m L, 1.2m x 2.4m. Sheeting dimensions of 1.2m x 5m, 1.2m x 10m, 1.4m x 5m, 1.4m x 10m and other sizes also produced for large quantities.

Step 4 of HIC Universal sheeting Selection:

Shore A Hardness of rubber sheeting — Shore A Hardness subject to ± 5 tolerance of sheeting 60 to 70 shore hardness is generally used for protection against high abrasion and impact, 50 to 55 durometer hardness rubber sheet for diaphragm energy sealing material like oil, gas, petroleum, 40 to 45 shore hardness softer rubbers for corrosion and abrasion control in slurry, lining of pipe work, launders, tanks, other mine site applications.

Step 5 of HIC Universal sheeting Selection:

Ply Cloth Insertion sheeting or Pure gum sheet — Fabric inserted rubber sheet for high tear resistance reinforced with single or double ply nylon fabric insertion sheet jointing suitable for air and water pressure and for use as diaphragms sheet for oil, LPG, solvent, control valves, pumps, flange jointing for creating differential pressures OR pure gum sheet with no cloth insertion, be selected and specified that shall be custom- manufactured.













Step 6 of HIC Universal sheeting Selection:

Colour of rubber sheeting - Black colour sheet as standard manufactured, besides Blue, Red, Grey, White Food Grade Quality and others be specified.

Step 7 of HIC Universal rubber sheet Selection:

Surface Finish of rubber sheets -Smooth surface finish sheeting, Cloth Impression finish rubber sheet, Chequered finish electrical mat, Calendared finish sheet, flat Matte finish sheeting rolls be specified. Sizes 1m W x 2m L, 1.2m x 2.4m are produced in moulded press finish.

*check Disclaimer, please













Purchase Enquiry Info

Insulating Rubber Mat and Synthetic Rubber Sheet Min. Information to Be Sent

(Email at: belts@universaldelhi.org; universal@hic-india.com or Call +91 11 2874 5120)

HIC ships electrical insulating mat rubber sheets seal gasket material conforming IEC 61111, IS 5424, IS 15652, IS 5192 tailor-made to buyer's order specifications to different countries including India. Please send following information in English to quote prices:

- 1. Matting or Sheeting Rubber compound name Grade
- 2. Rubber sheeting or mat Thickness, MM
- 3. Rubber sheet Size, w x I, Meter
- 4. Hardness Shore A, if any specific
- 5. Pure rubber or 1-2 ply cloth Insertion sheet
- 6. Colour, Black standard or any specific blue, red, grey, white
- Surface Finish, smooth or cloth impression or calendared long length rough
- 8. Quantity- Numbers or Square Meters





Shipment Handling and Delivery Time

Bulk quantity orders are packed in sea-worthy jute or HDPE in Rolls shipped via <u>sea</u> in less than container loads (LCL) /FCL or by air. Sea freight (BL) or <u>Air</u> freight (AWB) charges payable at destination.

Small orders are shipped overseas via **DHL** or **FedEx** or **Aramex** <u>courier</u>, for which your Authorization Account number be sent to be booked on "Freight To Collect" basis, together with complete acceptable physical address and phone or mobile number.

Domestic orders are dispatched to any destination in **India** by Road Transport, Gati or TCI or ARC or Jaipur Golden on **COD** basis.

Shipping Time, generally within 3-4 weeks or as stipulated in quote and accepted order.













Organization Structure

Industrial supply manufacturing company having dedicated team of 63 skilled work forces includes Rubber Technologist, Chemists, Engineers and Skilled Labor's, Management Experts viz., Plant Manager, Quality Control Inspector, Lab In charge and I.T specialists. Majority of operations are automatic.

Production Capacity of Rubber Sealing Products

	Approximate Qty. per annum
1. Rubber Sheet, Rubberized Cork Sheet, Floor Insulation Mat	1,80,000 kgs.
2. Skirt Board Rubber	50,000 Mtrs
3. Rubber Lagging Diamond Grooved	45,000 numbers

Visakhapatnam Steel Plant (721354), NALCO (3072), Subhash Projects (EM-10,18), Heavy Engg. Corp.(6003), Bokaro Steel (72621), Salem Steel(000155), Gujarat State Road(000118), ACC (944), Army Base(512/ABW-LP/76), NTPC(H8267), etc.

* Price List & terms on specific enquiry please.













Quality Assurance Plan

HIC Rubber Mat & Sheeting Testing Parameters

Quality rubber sheets and insulating mats manufactured in ISO 9001 certified HIC factories in India with Production Supervisors conducting routine pre-manufacture checks and post-manufacture tests as to:

100% Physical checks with respect to dimensions,100% Chemical checks w.r.t. MOC,20% Random physical tests



Tensile Strength & Elongation
Testing Machine

Test Certificate & Warranty

HIC Manufacturer's Lab TC of Insulating Mat & Rubber Sheet Supplied

Quality insulating mats for electrical purpose and rubber sheet gaskets conforming IS 15652, IS 5424, IEC 61111, BS 921, IS 638, IS 5192, ISO 6179, ASTM D1330, BS 2751, BS 2752, DIN 32676, IS 2751, ASTM F104, ISO 7322 - HIC manufacturers modern in-house Lab Test Certificate issued with respect to Thickness MM, Dimensions size Meter, Surface Finish, Polymer or blend Name, Tensile Strength, Elongation, Hardness Shore A, Di-electric and Thermal properties Test (for insulating mats only), besides other tests such as Compression Set, Accelerated Ageing etc.

Warranty of one year against any manufacturing defects in HIC manufactured rubber sheet mats product.

<u>Third Party Inspections</u> by DNV, RITES, EIL, QSS, SGS, also arranged in HIC's rubber sheets factory or by Government Approved Laboratory, Test Certificate issue fee charges directly reimbursed by buyers.

<u>Legalization</u> by Embassy or Chambers of Commerce <u>Attestation</u> of export shipping Invoice and other documents also provided towards export of Indian Origin sheet gasket material and insulating mats product if demanded on actual fee remitted by importers directly to HIC and or cost added up in Invoice.













Manufacturing & Testing Equipments



Exporters-Importers of industrial products having latest manufacturing machinery and advanced testing equipments.

Belt Press

Rubber Products Production Machinery



Belting Calander

Banbury Rubber Mixer, Dispersion Kneader(s), Mixing Mill(s) 2 Roll, Calander Machine (3Roll), Jointing Machine, Rubber Bale Cutter, Hydraulic Presses (2 daylight), Hydraulic Press (single daylight), Hydraulic Finishing Press, Belt Endlessing M.C.(Vulcaniser), Sundry Machines viz. Lathes, Shaper, Generator sets, Hydraulic Jacks, etc.

Rubber Products Quality Testing Apparatus as per ISO:



Manufacturing Hydraulic Press

B.O.D. Incubator (seasoning chamber), Hot Air Ageing Oven, Physical Balance, Tensile Testing Machines, Abrasion Tester(as per DIN), Drum Friction Tester (as per Canadian stds), Scott Flex Tester (as per railways), Dumbbell Dies, Yarn Testing Machine, etc. Calibrated periodically. Indigenous technology with latest technical Indian knows how, however, no collaboration made so far.

Quality Control

It is in between process checks that are strongly checked & lodged in register to ensure finished rubber product meeting quality standards.

Test Certificate (TC) of our Lab, wherever, applicable, is forwarded along with the supply.









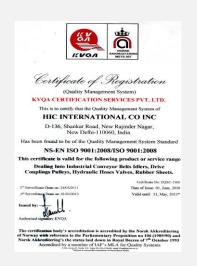




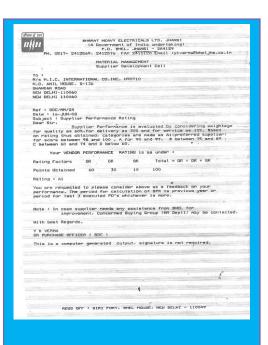
Performance Certificates

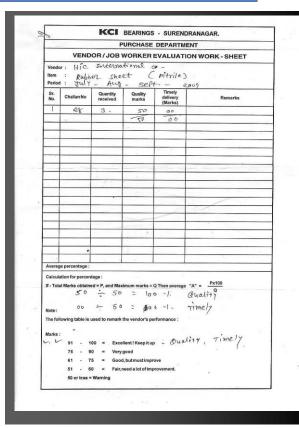


Export Excellence Award during Feb 1997



ISO Certificate









Many more certificates available as feedbacks are constantly monitored for providing highest customer's satisfaction.

Total Quality Management Principles Followed













Shock-Proof. Leakage-Free. Steam-Proof.

Rubber Mat Sheets

TRUSTED BY MACHINERY OEMs OF SUBSTATION, STORAGE SILO, POWER TRANSFORMERS, PHARMA SINCE 1988

www.electricalsafetymat.com | www.hicrubbersheets-azerbaijan.com | www.hicrubbersheets-china.com | www.siliconesheetgasket.com | www.nbrrubbersheet.com

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HIC India Headquarters







