

ELECTRICAL INSULATION MATS

How Do Electrical Insulation Mats Work?

Electrical Insulation mats are made of rubber. Rubber, due to its properties of resistivity, is used in many applications throughout industry to insulate and protect; it is an obvious choice for electrical safety matting and is tested vigorously to ensure it meets the required level of protection.

Rubber is a natural dielectric material and will therefore inhibit the flow of electric charge as a result of its molecular structure, preventing the free flow of electrons. The dielectric and electrically resistant properties of rubber make it an ideal insulator. This when combined with the flexibility and cushioning nature of the material, makes it a perfect choice for electrical safety matting.

Maintaining the insulating properties of Rubber is intrinsically linked to the construction of the compound. Any additives (dyes, fillers, preservatives and curatives) can affect the electrical resistance, hence strict quality control standards are maintained throughout the manufacturing process, to maintain the insulation performance.

Electrical Insulation Mats

Electrical Insulation Rubber Mats comply to **IEC 61111 / ASTM D 178 / AS/NZS 2978** and manufactured using **high quality elastomer rubber** in order to provide complete protection against electric shock, due to earth faults.

Electrical Insulation Mats are suitable for use in **outdoor** and **indoor** applications and are generally placed in front of electrical panels, switch gears & high voltage equipment, in order to create a safe working environment for the operators/users.

The Electrical Insulation mat insulates the worker from the ground to avoid him being crossed by electrical current, in case of direct contact or pace voltage. The choice of Class must be determined according to the maximal nominal voltage of the network.

The marking colour is made according to the colour coding of the Standard. Matting complies to the following specifications required by the Standard

- Puncture resistance test
- Dielectric test
- Ageing test
- Flame retardance test
- Acid resistance test
- Oil resistance test

Mat Specification

- Material: Rubber
- Temp Range: -40°C to +65°C
- Colour available in black and dark grey

Mat Features

- Withstand upto 50 kV
- Electrical mat is hard wearing and non-slip and can be easily cleaned or washed with a mild detergent
- Anti-fatigue nature, comforting feet while standing for prolonged period
- Matting is packed in 10 meter rolls to avoid joints, however cut lengths are also supplied
- Comply with IEC 61111 / ASTM D 178 / AS/NZS 2978 requirements
- Every 300 mm is marked with class and working voltage details
- Electrically tested for each meter



CLASSIFICATION

The following division is based on threshold level of electric current resistance.

Classification	Max Working Voltage	Proof Test Voltage	Withstand Voltage
Class 0	1,000 AC	5,000 AC	10,000 AC
Class 1	7,500 AC	10,000 AC	20,000 AC
Class 2	17,000 AC	20,000 AC	30,000 AC
Class 3	26,500 AC	30,000 AC	40,000 AC
Class 4	36,000 AC	40,000 AC	50,000 AC

