

Electric Discharge ESD Solutions

www.notrax.eu

E-2



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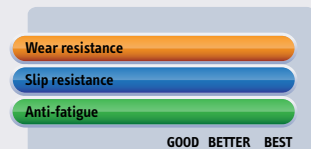


Notrax® Matting Testing & Pictograms

All Notrax® Floor Matting Products are subject to rigorous testing by independent laboratories prior to their introduction to the market. Our Product Testing Charts show the following relative comparisons between the Notrax® mats featured in each category of this brochure:

Example Product Testing Chart

PRODUCT TESTING



Wear resistance

Indicates the time it takes for a mat to lose its functionality. This is an accelerated wear test where the results are expressed in total weight loss of material when subjected to 5000 cycles under an abrasion wheel. The higher the pointer in the test chart, the greater its resistance to wear.

Slip resistance

Indicates the slip resistance of a mat. This test measures the force required to cause slippage of a load across the surface material. The coefficient is the ratio of force required divided by the weight. The higher the pointer in the test chart, the greater the coefficient of friction ratio, thus the better the slip resistance of a mat.

Anti-fatigue

Indicates the degree of comfort a mat provides. This test starts by measuring the original thickness of a mat. Then compression is applied and the thickness under this load is measured again. The difference between the two measurements is called deflection. The higher the pointer in the test chart, the better its anti-fatigue properties.



Anti-Fatigue

Matting that alleviates foot pressure, stimulates blood circulation and helps reduce stress on the lower back, leg joints and major muscle groups.



Anti-Slip

Matting designed to provide added traction through aggressive surface patterns and textures.



Oil Resistant

Matting suitable for contact with industrial oils.



Welding

Made of durable fire retardant rubber compounds. These mats can be used in areas where welding takes place.



ESD

Matting formulated to absorb static electricity. Avoids unpleasant static shock and safeguards equipment.



Fire Retardant

Matting designed to resist the spread of fire and withstand heat, substantiated by test certifications from independent laboratories.



Grip Step®

Coating for extra adherence in extremely slippery areas. Slip resistance up to R13 according to DIN 51130.



Drainage

Open construction matting allows for liquids and debris to pass through, providing secure footing in a wet environment.



Protection

Absorbs impact, reduces breakage and protects floors.



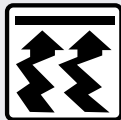
Non-Conductive

Matting formulated to provide insulation to protect workers in case of electrical shock.



Wheeled Access

Matting suitable for wheeled access (i.e. carts).



Insulation

Against cold, heat, vibrations and noise. Matting elevates standing workers from cold/wet floors, which keeps their feet warmer thereby improving overall perception of wellbeing.



Heavy Duty

Recommended for heavy duty use in industrial environments.



Medium Duty

Recommended for medium duty use in industrial environments.



Light Duty

Recommended for light duty use in industrial environments.



Modular System

Interlocking mats allow on-site customization with snap together units that can be assembled in any shape or form, as standalone mats or wall-to-wall configurations.



Cold Resistant

Material can withstand freezing temperatures.



Grease and Oil Resistant

Matting that is suitable for use in contact with vegetable oils and animal fats.



RedStop™

This uniquely engineered technology virtually eliminates the slipping and sliding of mats.



MicroStop™

Antibacterial treatment inhibits the growth of micro-organisms such as bacteria and fungi that can cause odour, stains, and product deterioration.



NFSI®

Tested and certified by the National Floor Safety Institute.



NSF

Tested and certified by the National Sanitation Foundation for grease and oil protection and durability.



Barefoot

Pleasantly soft and warm under bare feet.



Cleaning

Suitable for cleaning with high pressure (hot) water jet.

Notrax® Mats for Professional Use

Notrax® offers the perfect solution for standing workers because unlike any other industrial safety matting manufacturer, we understand the difference of perceptions of workers as well as the variety of workplace conditions that exist. We therefore design and manufacture the largest range of safety matting to provide the right solution.





Founded in 1948 by
Charles J. Wood (far right).

Notrax® is often referred to as one of the pioneers in anti-fatigue matting design and manufacturing. This is not surprising because since our founding in 1948, we have been committed to making quality products and optimizing processes.

Anti-fatigue mats come in various types and materials for industrial or commercial applications. Most anti-fatigue matting is a combination of an ergonomic pattern and a cushioning underlay. The cushioning causes constant subconscious balance checks and micro movements that stimulate blood flow through the legs and lower extremities. This results in better circulation and less fatigue. The cushioning underlay insulates the feet from the hard surface, cold floors, vibrations, moisture and sound.

Product Innovation

As one of the market leaders in anti-fatigue and safety matting, Notrax® Mats for Professional Use has become synonymous with quality, flexibility and customer service. What started as a small family-owned mat repair company has quickly grown to a global company. Now, as part of the Checkers Safety Group, we excel in the design and manufacturing of anti-fatigue and safety matting for industrial and commercial applications.

As the industry and manufacturing processes evolve, so do our matting products. We are constantly developing new products to meet the changing needs of the industry. We focus on customer problems and working together with them to create matting solutions that resolve the issue. Our innovations team continues to design state-of-the-art products through intense research and development using new technologies, new design techniques and new ideas.

Notrax® products are sold globally through our trusted distributor network of matting experts, operating in niche segments of ergonomics, cleaning and hygiene, health and safety, industrial supplies, installation experts, and many more. Understanding and responding to the markets specific needs reflects our interest and pleasure in serving our distributors and their customers. Examples of this include the development of mass customization capabilities and online integration with customers. As one of the world's largest integrated manufacturers of professional floor matting products, our belief in strong relationships is the foundation of our business.

With facilities in Europe and the United States, we constantly seek to reduce the environmental impact of our processes. It means that we aim to grow our business in an environmentally responsible manner, and we do this by focusing on diminishing waste, using recycled materials where possible, and by obtaining more materials from sustainable sources. The "Lean" organization of our operations not only enables us to stay competitive and provide fast service, it also enables our customers to

participate in a joint effort to reduce the carbon footprint simply by making use of our electronic purchasing and invoicing services and drop shipment capabilities.

R.E.A.C.H.

REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances. The law entered into force on 1 June 2007 assigns manufacturers the responsibility of providing high level human and environmental protection from the use of chemicals in manufacturing. Notrax® does not use any substances currently included on the SVHC (Substances of Very High Concerns) list under REACH, including Di-octyl phthalate (DOP) plasticizer. Further information about our stand on sustainability can be obtained at www.buynotrax.eu for registered distributors or upon email request to europa@checkers-safety.com.

Product Warranty

All Notrax® floor matting is manufactured of the highest quality material and workmanship. Dependability and service of our products are guaranteed against defects in material for one year from date of purchase provided manufacturer's recommended usage and maintenance is followed. Buyer has the responsibility to determine the suitability of the product and assumes any liability in connection with such use. Seller shall not be liable for damages in excess of purchase price of product. In the unlikely event of a Notrax product being faulty, a full refund or replacement (based on manufacturer's discretion) will be made. Warranty claims must be authorized for return and shipped prepaid for inspection and evaluation. For information about floor matting maintenance: www.notrax.eu/news.

This catalogue highlights the solutions Notrax® offers for your ergonomic anti-fatigue and safety matting applications. Feel free to also ask for the latest Notrax® brochure for Dust Control Matting for entrance ways.

Thank you for choosing Notrax®.

René Vieven
Managing Director

Checkers Safety Group Europe BV



Benefits of Anti-fatigue Matting

In many industries, employees are required to work while standing, walking and/or carrying loads. Experts agree that matting can significantly improve productivity and employee satisfaction while reducing absenteeism and chronic illnesses related to long term standing.

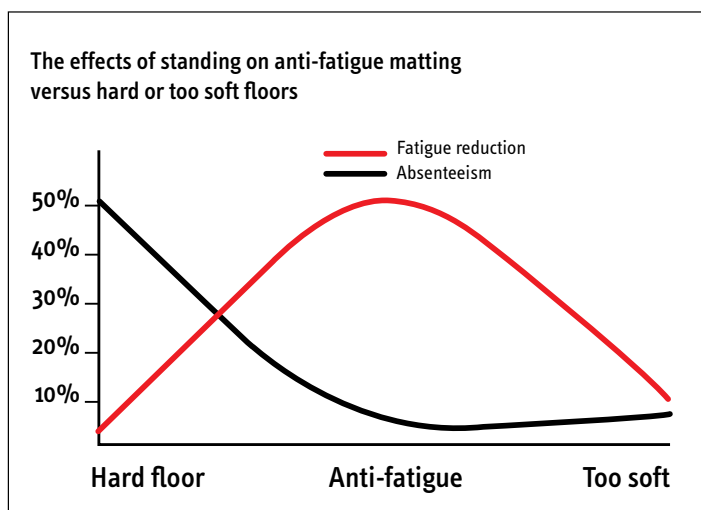


How Anti-Fatigue Matting Works

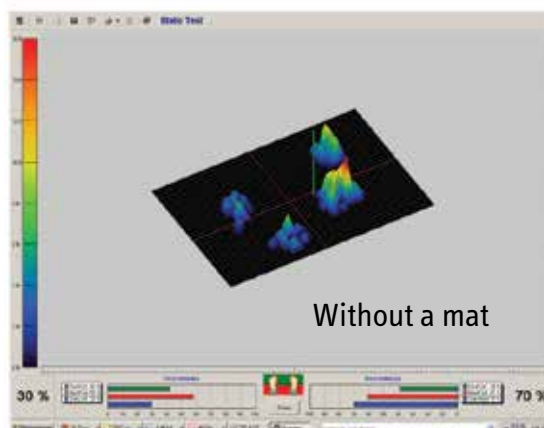
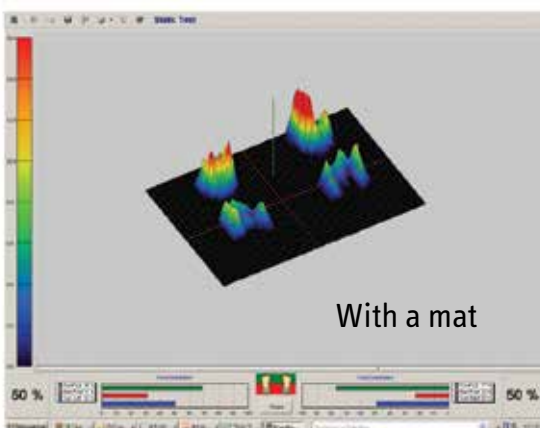
How an anti-fatigue mat works is well described in an article that was published in the April 1999 issue of "Occupational Health & Safety", written by James M. Kendrick: "Anti-fatigue mats are engineered to make the body naturally and imperceptibly sway, which encourages subtle movement by calf and leg muscles. This promotes blood flow and keeps it from stagnating in the veins, which causes workers to feel fatigued."

Standing on hard surfaces for long periods causes muscles to constrict, which reduces the blood flow. This makes muscles and joints hurt, and it causes blood to stagnate. Long-term standing causes pronation, or excessive flattening of the foot and can also lead to plantar fasciitis. Lower back pain is highest in workers who stand 4 hours or more per day.

As noted by Mr. Kendrick, the cushioning effect of anti-fatigue matting allows continuous micro-movements of the feet, which minimizes blood pooling in the legs. There is good reason to believe that reduction of fatigue also reduces the possibility of accidents and improves general work efficiency. There are fewer days lost to injuries, fewer medical claims, and compliance with new health and safety requirements.



Too much cushioning can have a negative effect. Too great an amount of softness or "give" will actually cause excessive fatigue because it overworks the muscles. Think of it like jogging on the beach. Notrax® floor mats are made of specific formulations and designs that provide fatigue relief which will contribute to increased productivity and employee satisfaction.



Scientific Support

Early studies such as Morgora (1972) showed that the incidence of lower back pain was highest in those workers who stood regularly for periods of more than four hours and Bousseman et al. (1982) brought to light that long term standing is a direct cause of pain and discomfort.

Subsequent research carried out by Dr. Mark Redfern and Dr. Don Chaffin at the Centre for Ergonomics, University of Michigan in 1988, and Paula Hinnen and Stephan Konz at the Department of Industrial Engineering, Kansas State University, 1994, made observations of the difference between standing on hard floors versus standing on soft floors. Both their studies concluded that mats significantly affect fatigue and comfort in different body regions.

More recent studies by Prof. Dr. Redha Taiar (2011, 2015, 2017) at the University of Reims in France illustrated how human mechanics in a working environment are impacted through the use of anti-fatigue mats. By observing workers' posture and measuring foot pressure for employees standing for long periods, Prof. Taiar was able to identify two causes of fatigue and therefore a two-pronged approach in combating the muscular-skeletal disorders associated with long-term standing.

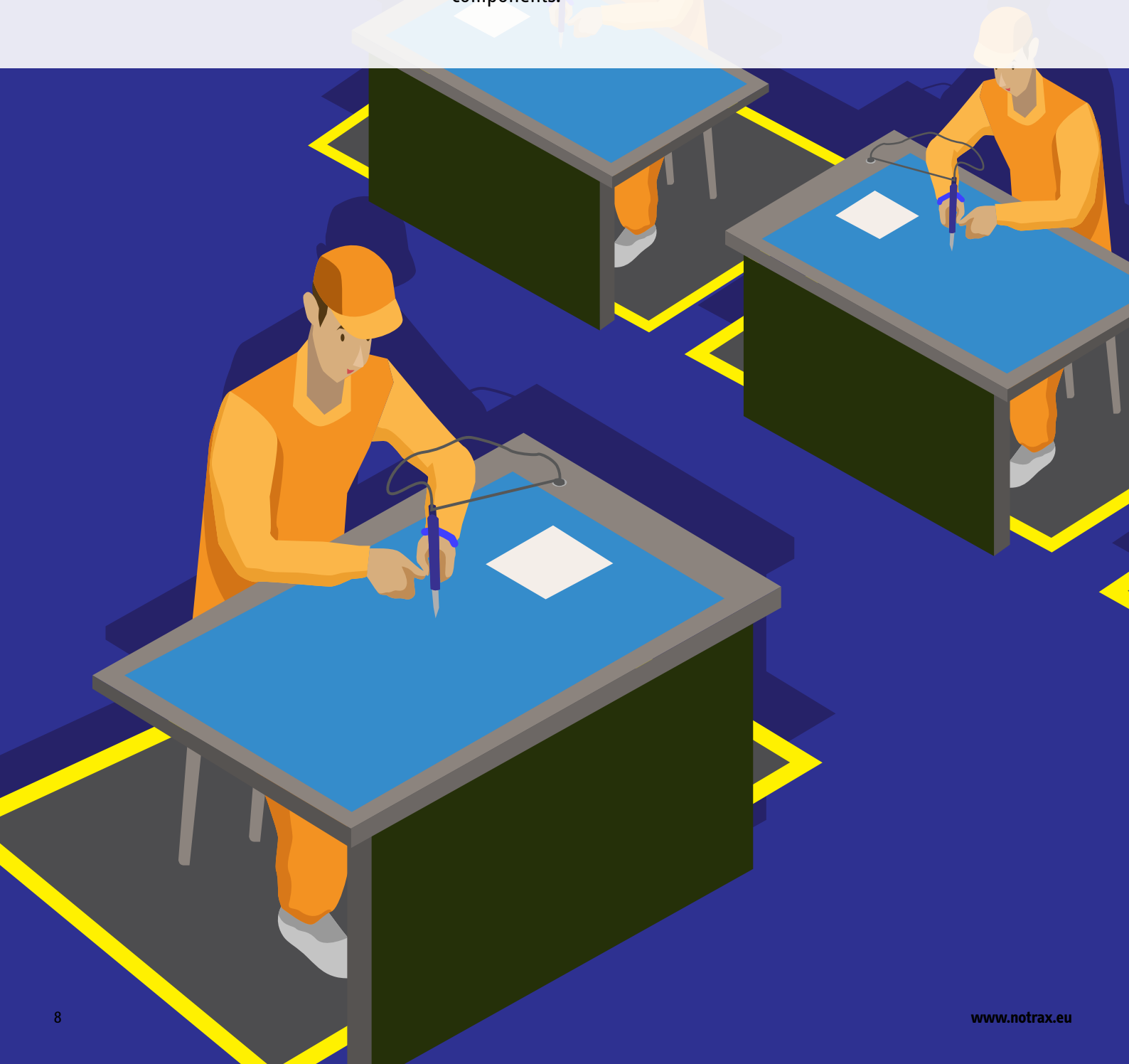
Firstly, the worker should vary foot pressure while standing to eliminate the overuse of the same muscles (Cinderella Fibers). Secondly, using an anti-fatigue mat eliminates pressure points from the floor and spreads weight evenly to correct balance. Prof. Taiar's findings confirmed that pains are substantially reduced with the use of anti-fatigue mats compared to the initial situation without mats.

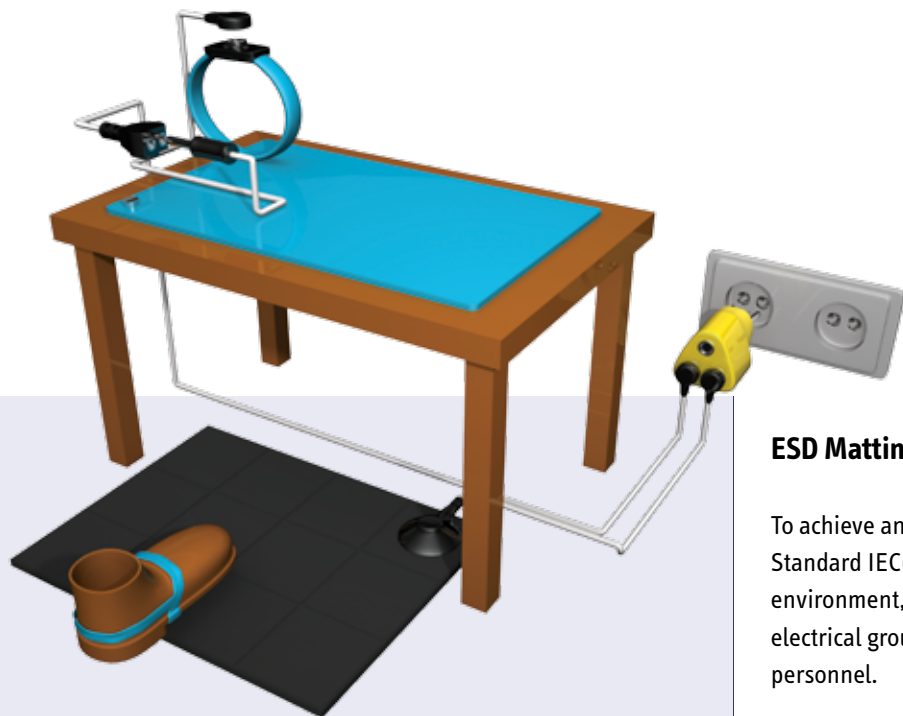
To request a copy of Prof. Taiar's research, Standing Smart, visit www.notrax.eu.



Electric Discharge ESD Solutions

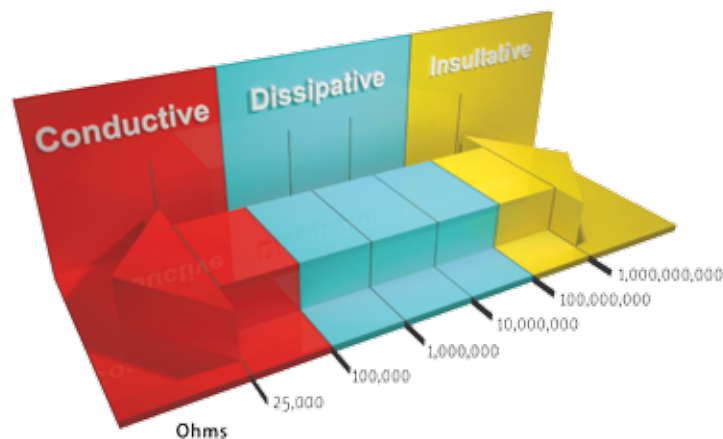
There is a growing demand for anti-static solutions in industrial and commercial environments. In many facilities, people are one of the prime generators of static electricity. The simple act of walking around can generate several thousand volts on the human body, especially in the winter when air becomes drier. If not controlled, static build up can cause static shock to employees and unseen damage to electronic components.





ESD Matting Solutions

To achieve an ESD protective work area while complying with Standard IEC61340-5-1 or ANSI EOS/ESD 6.1, all conductors in the environment, including personnel, must be grounded to the same electrical ground point, creating a balance between all items and personnel.



There are a number of ESD products to help reduce or eliminate static build-up from furniture, gear, footwear to flooring. Out of these multitude of products, many facility managers view static-dissipative flooring as the most-effective means to prevent ESD from becoming a problem. ESD rubber flooring has even been cited by MIT Lincoln Laboratories as having the most effective static protection for any application and the only static resistant product that works regardless of footwear.

ESD matting solutions range from dissipative to conductive to meet IEC61340-4-14 requirements. Static dissipative matting has an electrical resistance range of $10^6 - 10^9$ measured in Ohms. Charges will flow to ground more slowly and in a somewhat more controlled manner than with conductive materials. To achieve an ESD protective work area while complying with Standard IEC61340-5-1 or ANSI EOS/ESD 6.1, all conductors in the environment, including personnel, must be grounded to the same electrical ground point, creating a balance between all items and personnel.

Notrax® also offers a full range of ESD accessories including grounding cords, wrist bands, heel grounders and ESD mat cleaner.

Dry Areas - Static Dissipative Mats

ESD Protective Mats

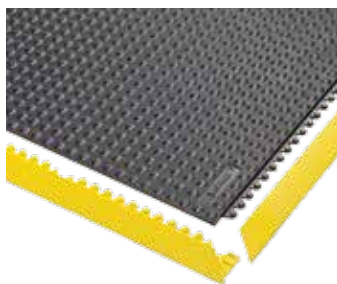
Static dissipative anti-fatigue mats protect against static shocks while providing comfort for standing workers derived from a thick worker platform with vinyl sponge base for fatigue relief. Bevelled edges on all four sides to minimize risk of tripping.

Specifications:

- Meets IEC61340-4-1 (category D1F), measured resistance $R_g 10^6 - 10^9 \Omega$, $R_p 10^6 - 10^9 \Omega$.
- Electrostatic charge (walking test), meets ISO6356 and EN1815.
- Free of DOP, free of DMF, free of ozone depleting substances, free of silicone and free of heavy metals.
- Compatible with ESD Accessories on page 54/55.

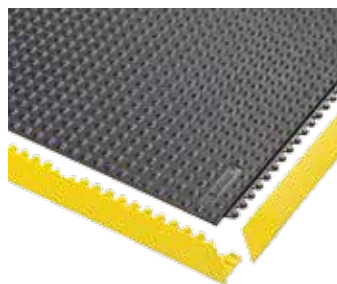


463 Skywalker HD™ ESD



Page 27

464 Skywalker HD™ ESD FR



Page 27

558 Cushion Ease™ ESD



Page 21

661S Cushion Ease™ ESD FR



Page 21

826 Diamond Stat™

Ergonomic benefit derived from 14 mm thick worker platform of a static dissipative combination of tough top surface laminated onto a comfortable sponge base for maximum durability coupled with fatigue relief. Equipped with 10 mm female socket attached to the mat and grounding cord. Diamond deck plate surface provides traction and allows easy twist turns. Featured with RedStop™ slip resistant backing to prevent mats from shifting. UniFusion™ technology, engineered to resist in the harshest work environments.

Specifications:

- 4.7 mm static dissipative PVC top surface permanently bonded onto a 9.3 mm resilient backing of microcellular vinyl
- Overall thickness: 14 mm
- Weight: 6.5 kg per m²
- Fire classification Cfl-S1 tested according to EN 13501

Recommended uses:

- Heavy duty - dry industrial environments

Colours:

- Black

Full rolls 22.8 m:

- 91 cm x 22.8 m
- 122 cm x 22.8 m

Stock sizes:

- 91 cm x 150 cm
- 91 cm x 3 m

Custom lengths:

- 91 cm per linear meter
- 122 cm per linear meter



PRODUCT TESTING

Wear resistance

Slip resistance

Anti-fatigue

GOOD BETTER BEST



825 Cushion Stat™

Ergonomic benefit derived from 9.4 mm thick worker platform of a static dissipative vinyl sponge that reduces fatigue and static build-up. Pebble pattern provides non-directional traction and is easy to clean. Optional 10 mm female socket attached to the mat for connection with optional grounding cord.

Specifications:

- Static dissipative vinyl sponge
- Overall thickness: 9.4 mm
- Weight: 3 kg per m²

Stock sizes:

- 91 cm x 150 cm

Full rolls 18.3 m:

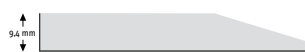
- 91 cm x 18.3 m

Recommended uses:

- Light duty - dry areas

Colours:

- Black/yellow, Black, Grey



PRODUCT TESTING

Wear resistance

Slip resistance

Anti-fatigue

GOOD BETTER BEST



457 Skystep™ ESD



452 Skywalker® PUR ESD



453 Skywalker® II PUR ESD



Dry Areas - Static Dissipative Table Mats & Accessories

ESD Protection from A to Z

Specialized line of ESD accessories to ensure a static free workplace and protect employees and sensitive electrical equipment. Use these accessories to connect table work surface, employees and conductive material to a common grounding point. This creates a balance between all items and personnel to ensure static electricity will flow to ground in a controlled manner.

Recommended uses:

- For use in ESD working zones to protect electrostatic sensitive components



Ring terminal Art. 051SFG0100



Female socket Art. 051SFG0200



Ring terminal Art. 052SCG0100



Female socket Art. 052SCG0200



Art. 051 Floor Mat Grounding Cord

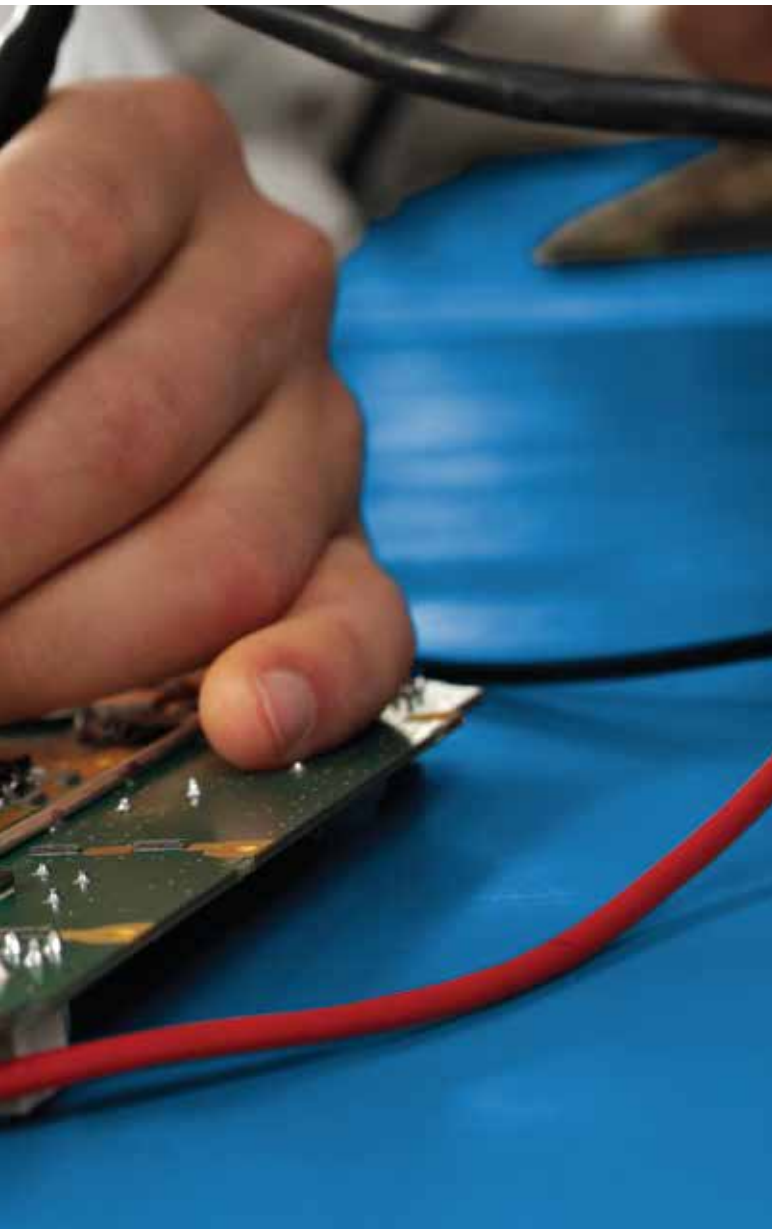
- 4.5m cable and connector that connects a mat to ground
- Easy to install, simply snap it to a mat and connect terminal to ground
- The low profile bevelled cap prevents the cord from being accidentally removed from the mat
- Resistor 1 Meg mat to ground
- Available with a ring terminal or 10 mm female socket that connects to grounding plug
- Meets the requirements of ANSI/ESD S-20.20 and EIA625

Art. 052 Common Grounding Point Cord

- 4.5m cable connects one or two wrist bands and a bench mat to ground
- Assures that all parts are at the same ground potential
- Easy to install, simply snap it to a mat, plug in the wrist strap coil cord and connect terminal to ground
- Resistor 1 Meg mat to ground
- Available with a ring terminal or 10 mm female socket that connects to grounding plug
- Meets the requirements of ANSI/ESD S-20.20, EIA625 and ANSI/ESD S6.1

Art. 053 Coil Cord

- 1.8m cable connects wristband to common ground point on table mat
- 1 Meg resistor, 10 mm socket snaps to wristband, and the other end is a banana plug
- Meets the requirements of EOS/ESD S1, MIL-STD-1686, and EIA 625



827 Anti-Stat POP™

Static dissipative vinyl work surface that static load from conductive items placed on it. Protects sensitive components safe from damaging static shocks. Smooth top surface that is abrasion resistant and easy to wipe clean with recommended art. 057 Mat Cleaner. Optional grounding cord.

Specifications:

- Microcellular vinyl foam treated with dissipative static properties
- Overall thickness: 6.4 mm
- Weight: 3 kg per m²
- Meets EOS/ESD-S4, measured resistance Rg 10⁷ Ω and Rp 10⁸ Ω
- Electrostatic charge (walking test), meets ISO6356 and EN1815

Colours:

- Blue

Custom lengths 12.2 m:

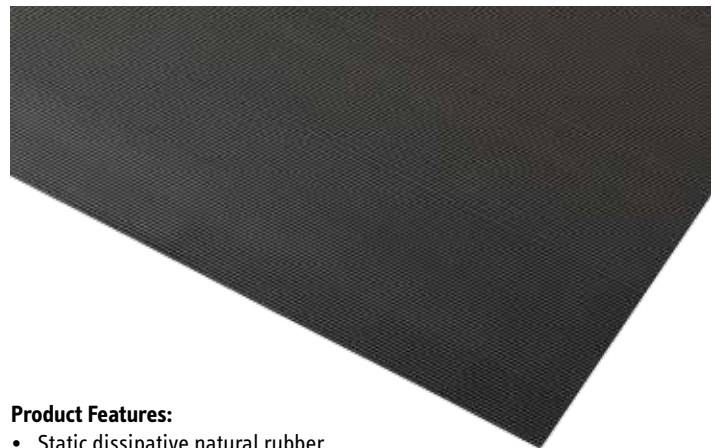
- 60 cm per linear meter
- 76 cm per linear meter
- 91 cm per linear meter

Stock sizes:

- 60 cm x 12.2 m
- 76 cm x 12.2 m
- 91 cm x 12.2 m

754 Rib 'n' Roll™ ESD 3mm fine rib

ESD work surface that dissipates static from conductive items placed on it. Protects sensitive components safe from damaging static shocks. Smooth top surface that is abrasion resistant and easy to wipe clean with recommended art. 057 Mat Cleaner.



Product Features:

- Static dissipative natural rubber
- Overall thickness: 3 mm
- Weight: 3 kg per m²
- Meets EOS/ESD-S4, measured resistance Rg 10⁷ Ω and Rp 10⁸ Ω.
- Electrostatic charge (walking test), meets ISO6356 and EN1815.

Stock sizes:

- 120 cm x 150 cm



Art. 054 Earth Bonding Plug

- Connects grounding cords to ground
- 1 Meg Resistor, 3 x 10 mm male studs, allowing multiple cord connections per plug
- Available in Continental or U.K. version



Art. 055 Heel Grounder

- A device for connecting a walking or standing person to ground by using a conductive rubber thread to provide the necessary electrical contact between the person and the floor mat



Art. 056 Wrist Band

- Wrist Bands connect a worker's skin to ground and are therefore the primary means of controlling static charge on personnel. When properly worn and connected to ground, static charges are safely dissipated from the person
- Meets the requirements of EOS/ESD S1, MIL-STD-1686, and EIA 625



Art. 057 Mat Cleaner

- Mat cleaner is recommended for static safe table and floor mats. Its non-abrasive formula leaves no film and is designed to enhance the static dissipative properties of ESD safe surfaces. Effectively removes flux residues, oil, finger marks and dirt.
- Convenient 1 liter bottle trigger spray

Industrial Specialties - Electrical Protective Matting

Electrical Safety Solutions

Insulating matting prevents workers from being “grounded” and provides safety in case of electrical shock. Switchboard mats can be used in dry environments in front of high voltage boxes, electrical fuse boxes, and transformers. As well as around electric sub-stations, transformers and switches, electrical panels, engine and generator rooms. The corrugated saw-tooth top surface provides increased traction and is easy to sweep clean. Underside has fabric impression. Free of DOP, free of DMF, free of ozone depleting substances, free of silicone and free of heavy metals.

Non-conductive switchboard mats are designed to provide insulation for the worker. Each square inch of matting is tested in conformance with ANSI/ASTM D-178 specifications. Must be replaced every 12 months for optimum safety.

Recommended uses:

- Heavy duty – dry industrial environments, around electric sub-stations, transformers and switches, electrical panels, engine and generator rooms



832 Switchboard Matting™ Class 4

Specifications:

- Overall thickness: 12.7 mm
- Weight: 16 kg per m²
- O-zone resistance, flame resistance and oil resistance
- Class 4 - Dielectric Strength: 50.000 V
- Proof Test: 40.000 Volts
- Recommended maximum usage: 36.000 Volts

Stock sizes:

- 91 cm x 150 cm

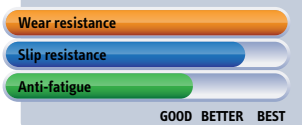
Full rolls 9.14 m:

- 91 cm x 9.14 m

Custom lengths:

- 91 cm width per linear meter

PRODUCT TESTING



830 Switchboard Matting™ Class 2

Specifications:

- Overall thickness: 6.4 mm
- Weight: 8.4 kg per m²
- Class 2 - Dielectric Strength: 30.000 V
- Proof Test: 20.000 Volts
- Recommended maximum usage: 17.000 Volts

Stock sizes:

- 91 cm x 150 cm

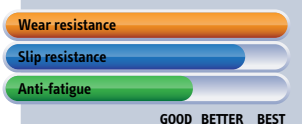
Full rolls 22.8 m:

- 91 cm x 22.8 m

Custom lengths:

- 91 cm width per linear meter

PRODUCT TESTING



833 Switchboard Matting™ Class 1

Specifications:

- Overall thickness: 4.7 mm
- Weight: 7.6 kg per m²
- Class 1 - Dielectric Strength: 10.000 V
- Proof Test: 10.000 Volts
- Recommended maximum usage: 7,500 Volts

Stock sizes:

- 91 cm x 150 cm

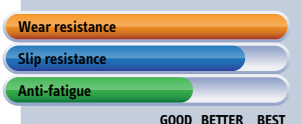
Full rolls 22.8 m:

- 91 cm x 22.8 m

Custom lengths:

- 91 cm width per linear meter

PRODUCT TESTING



From dry to wet conditions, light to heavy duty, use this catalogue to choose the right Notrax® mat for the right application. It will contribute to increased productivity, employee satisfaction and fewer injuries.



Handelsvertretung Uwe Rudnick
Siebenbergstr. 18 | D-33039 Nieheim
Tel.: 05274 / 876 4 Fax: 05274 / 958 87
info@rudhandel.de



Justrite Safety Group



justrite.com

Notrax® is part of Justrite Safety Group. Since 1906, customers have trusted Justrite for innovative solutions to help protect workers and the environment, reduce fire risks, and improve productivity. Tested for unsurpassed quality and compliance to applicable codes and regulations, Justrite products are available worldwide.