Safety and comfort are in your hands.

3M[™] Safety-Walk[™] Antislip and Antifatigue products.



Every year thousands of people suffer from work accidents and related diseases. It should not be like this...



Slip, trips and musculoskeletal disorders: risk factors that cost accidents and money.

It is well known that slips, trips and falls are the most common causes of over 3 day accidents in many industries. Stairways, ladders, ramps, walkways, factory buildings, machineries, shower and dressing rooms are all potential areas of risk.

At the same time, work-related musculoskeletal disorders (MSDs) are fast becoming the greatest safety challenge for many companies. Every year thousands of UK workers are affected by MSDs due to the ergonomics of their working environmenta.² This translates into indutry costs of many millions of pounds. Leg and back pain due to standing on uncomfortable surfaces has been identified as a key driver in the development of musculoskeletal disorders.

Taking steps to reduce the impact of workplace related physical fatigue drivers is a much higher priority in most employers'

Many of these risks can be prevented.

Many of these risks can be prevented by implementing simple floor level safety measures:

effective antislip surfacing (in compliance with the European Directive on Health and Safety at the workplace nr. 89/654) and comfortable, high performance antifatigue

matting systems that not only enhance short term productivity as well as reducing compensation and insurance costs for most companies. The rewards for a simple and low cost investment in a proactive floor level safety and comfort program are not only financial, they could save a life.

3M's wide industrial experience in both the areas of antislip and antifatigue products has created this latest range.

3M[™] Safety-Walk[™] offer a full range of floor level safety products to minimize risk in many industrial applications:

- 3M Safety-Walk antislip surfaces reduce slip trip and fall accident rates helping keep down compensation claims and insurance premiums.
- 3M Safety-Walk antifatigue matting

systems have been developed to reduce workers' accumulated physical fatigue caused by operations where the worker stands at a workstation for long periods.

Both the antislip and antifatigue products have been developed by 3M to provide effective, consistent and repeatable high performance levels over a long in service life.

¹ "The State of Occupational Safety and Health in the European Union" – Study by the European Agency for Safety and Health at Work, 2000. ² OSHA Fact Sheet nr. 3 "Work-related musculoskeletal disorders in Europe", 2000.

3M[™] Safety-Walk[™] Antislip products

3M Safety-Walk Tapes

- 3M Safety-Walk General Purpose
- 3M Safety-Walk Coarse
- 3M Safety-Walk Conformable
- 3M Safety-Walk Medium Resilient
- 3M Safety-Walk Fine Resilient



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3M Safety-Walk Wet Area Matting

- 3M Safety-Walk Wet Area Matting 1500
- 3M Safety-Walk Wet Area Matting 3200



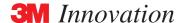
3M Safety-Walk Antifatigue matting



3M Safety-Walk Cushion Matting

- 3M Safety-Walk Cushion Matting 5100
- 3M Safety-Walk Cushion Matting 5250-5250E
- 3M Safety-Walk Cushion Matting 5270-5270E





Why Antislip surfacing?

Slippery surfaces caused by wet, greasy or oily floors make a significant contribution to the accident statistics.

Slips, trips and falls are identified by the HSE as the biggest cause of all over 3 day accidents in all sectors from heavy manufacturing through office work.

Let's fight these trends!

From "The State of Occupational Safety and Health in the European Union" study by the European Agency for Safety and Health at Work. "Falls" refers to "low falls" of less than 2 meters. 31% of UK over 3 day accidents are caused by slips, trips and falls according to the latest HSE bulletin.

What are the provisions of European legislation at this point?

EC Directive 89/654 (Health and Safety at the workplace) Annex I:

- 9.1. "The floors of workplaces must have no dangerous bumps, holes or slopes and must be fixed, stable and not slippery.
- 21.3. When workers are employed at workstations outdoors, such work stations must as far as possible be arranged so that workers:...
- (d) cannot slip or fall."

For buses and coaches, a new European Parliament and Council Directive¹ will introduce new safety standards especially concerned with passengers with reduced mobility. In particular it will require:

- slip-resistant surface of gangways and access passages (Annex I, 7.7.5.9)
- slip-resistant steps (Annex I, 7.7.7.6)
- slip resistant floor surfaces for wheelchair areas (Annex VII, 3.6.1 and 3.8.3.g)
- non-slip sloping areas (Annex VII, 3.5)

¹ Directive relating to special provisions for vehicles used for the carriage of passengers comprising more than eight seats in addition to the driver's seat and amending Directives 70/156/EEC and 97/27/EC.

Superior raw materials → extra-resistance for an extended lifetime

Selected coatings and minerals → sustain high friction and increase safety

3M's high performance adhesive → excellent and durable bond

Low profile → prevents trip hazard and allows easy wheel crossing

Available in a wide product range → the right solution in any situation

3M Safety-Walk Antislip materials meet the provisions laid down in the existing EC Directive on Health and Safety at the Workplace and are available in treads, rolls and matting and in a large variety of sizes, colors and grades.

3M[™] Safety-Walk[™] Antislip surfacing solved their problem!







The Seine river cruise boats in Paris

The Bateaux Mouches site in Paris, starting point for the Seine river cruises, is one of the most popular attractions in the French capital. Each year, more than 2 million people embark on the typical Parisian boats from this location to admire unique views of the city.

3M Safety-Walk has been chosen by the Compagnie Générale des Bateaux Mouches to ensure their safety in any weather condition: a tough test with a terrific amount of traffic that 3M's antislip coverings have passed with full marks.



EADS Airbus

Granting safety of loading areas can be a challenging task, especially in tough environments, such as on commercial freight liners where heavy loads and containers have to be moved around. Floor construction Engineers at The European Aeronautic Defense and Space Company (EADS, a company born from the merger of Daimler Chrysler Aerospace with Aerospatiale Matra and CASA) have successfully chosen 3M Safety-Walk to avoid slips and falls on their Airbus A300-600 F4.

All 3M[™] Safety-Walk[™] Antislip products are developed and manufactured with the following features:









3M[™] Safety-Walk[™] General Purpose

Description: Abrasive particles bonded by a tough, durable polymer to a dimensionally stable plastic film to provide an effective antislip surface in most shoe traffic applications.

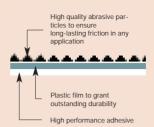
Applications: Used for all slippery surfaces with intensive pedestrian or light vehicle traffic: stairways, production and storage rooms, ramps, ladders and machine footplates.

Colors:

- black (610)
- clear (620) • yellow (630)
- brown (660)
- green (640)







Typical properties	GP Black	GP Clear and Yellow	GP Green and Brown
Applied Thickness	0.8 mm	0.9 mm	0.8 mm (green) - 1.0 mm (brown)
Applied Weight	710 g/m ²	735 g/m ²	710 g/m²
Service temperature range	minus 40° C/+79° C	minus 29° C/+65° C	minus 40° C/+79° C
Coefficient of friction MIL-D-17951 E DIN 51130	Exceeds specification R13	Exceeds specification R13	Exceeds specification R13 (green), R12 (brown)
Fire Retardancy, smoke density & toxicity IMO A 653 (16) & MSC 61-(67) NF F 16101 (trains) FAA 25853-F-1 DIN 5510 (trains) ASTM E 648-95a	M2 F1 Passes SF3 1,02 W/cm ²	M3 F1 Passes 1,02 W/cm²	>1,05 W/cm²
Chemical resistance*	most chemicals	most chemicals	most chemicals

3M Safety-Walk Coarse

Description: Large abrasive particles bonded by a tough, durable polymer to a dimensionally stable plastic film to resist clogging when subjected to mud or oil.

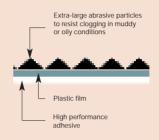
Applications: Agriculture and forestry equipment, road building, civil engineering, lorries, tractors, construction vehicles, cranes, building equipment. It can be painted without losing friction properties.

Color:

• black (710)







3M Safety-Walk Conformable

Description: Abrasive particles bonded by a tough, durable polymer to an aluminum foil to conform to irregular surfaces.

Applications: Especially for uneven or contoured surfaces (e.g. diamond plate).

Colors:

- black (510)
- yellow (530)







Typical properties	Average values
Applied Thickness	0.9 mm
Applied Weight	885 g/m ²
Service temperature range	minus 29° C/+65° C
Coefficient of friction MIL-D-17951 E DIN 51130	Exceeds specification R13
Fire Retardancy FAA 25853-F-1 ASTM E 648-95a	Passes 1,02 W/cm ²
Chemical resistance	Resist most chemicals

3M Safety-Walk Medium Resilient

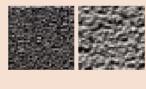
Description: Medium surface texture with plastic, granulate coating to provide a soft, comfortable, hygenic, slip-resistant covering.

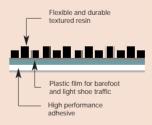
Applications: Ideal for barefoot or light shoe traffic areas and wet areas: boats, watersports equipment.

Colors:

- black (310)
- grey (370)







Typical properties	Average values
Applied Thickness	1.2 mm
Applied Weight	827 g/m²
Service temperature range	minus 10° C/+79° C
Coefficient of friction	
MIL-D-17951 E	Exceeds specification
DIN 51097 (list NB)	Class: A+B+C
Fire Retardancy	
FAA 25853-F-1	Passes
ASTM E 648-95a	0.37 W/cm ²
DIN 5510 (trains)	SF3
Chemical resistance	Resist most chemicals

3M Safety-Walk Fine Resilient

Description: Fine surface texture with plastic, granulate coating providing a comfortable, hygienic barefoot antislip covering with an excellent aesthetic impact.

Applications: Ideal for barefoot areas and wet areas: shower rooms, baths, changing rooms and around saunas.

Colors:

- white (280)
- clear (220)







Typical properties	Average values
Applied Thickness	0.6 mm
Applied Weight	640 g/m ²
Service temperature range	minus 10° C/+66° C
Coefficient of friction MIL-D-17951 E DIN 51097 (list NB)	Exceeds specification Class: A (Clear) Class: A+B (White)
Fire Retardancy FAA 25853-F-1 ASTM E 648-95a	Passes >1,08 W/cm ²
Chemical resistance	Resist most chemicals





3M[™] Safety-Walk[™] Antislip products. Easy to apply...

3M Safety-Walk Slip-Resistant Materials can be applied quickly and easily. Just follow these simple rules:



1. Clean the area with a degreasing solution (such as 3M industrial cleaner) to remove any grease or dirt. Rinse thoroughly and allow to dry completely. Minimum temperature for a correct application: 4° C (10° C for Fine Resilient).



2. For porous surfaces, rough or smooth (like unpainted wood, concrete or stone floors), apply a 3M primer (Scotch-Grip" 2141 or Fast-Bond™ 10 or Scotch-Clad™ 776) with a brush on the exact area where the 3M Safety-Walk tread is to be placed. Allow primer to dry thoroughly



3. Round the corners of any piece cut from the roll. Pull one end of the 3M Safety-Walk product backing and place it in the appropriate area. Try not to touch the adhesive. On steps, apply 3M Safety-Walk materials 12 to 15 mm from stair edge to prevent edge curl.



4. Apply the remaining 3M Safety-Walk product by gradually pulling the liner and pressing in place.



5. Use 3M Rubber Hand Roller to prove a firm bond. For 3M Safety-Walk Conformable Treads, a rubber mallet can also be used to conform the 3M Safety-Walk Slip-Resistant Material to the irregular surface.



6. For wet areas, apply 3M Safety-Walk Edge Sealing Compound to the edge of the 3M Safety-Walk slip-resistant product, making sure that the sealer bead covers the edge of both tread and floor. After the edge sealer dries (normally 30 minutes), the area is ready for

... and easy to maintain



Inspect the application periodically to maintain product

ensure serviceability.



Regularly scrub the treads with a stiff bristle brush to ensure that they are

kept free from dirt and other residue that might impair functionality



Wash with detergent and rinse with water to keep material and surrounding surface

dirt and grease free.

3M[™] Safety-Walk[™] Wet Area Matting

The range of 3M Safety-Walk Antislip surfaces offers also matting especially designed to be effective in barefoot areas, such as in sport settings, swimming pools or boats.

3M Safety-Walk Wet Area Matting 1500

Description: Unbacked, open matting made from continuous coiled vinyl filaments to provide an antislip, comfortable and attractive walking surface suitable for barefoot and light shoe traffic in wet areas.

Applications: This mat fits perfectly in changing rooms, around swimming pools and whirlpool baths, around saunas, and shower and bath areas. It is suitable for use on boats, in sports centers, hotels and hospitals alike.

Colors: hunter green, caravan gold and horizon blue

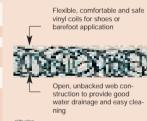








Typical properties	Average values
Thickness	9.0 mm
Veight	2.0 kg/m ²
Fire Retardancy	
NF P92507	M3
Microbiological properties	
ASTM G-21-90	Inhibiting to fungal growth
Chemical resistance	Resist most cleaning and disinfecting chemicals



3M Safety-Walk Wet Area Matting 3200

Description: Unbacked matting in flexible vinyl with an open mesh structure that allows water to run through the matting so that the surface stays drier than the surrounding area. The resilient surface is comfortable for barefoot traffic, while the vinyl is formulated for resistance to chlorinated water, body oils,

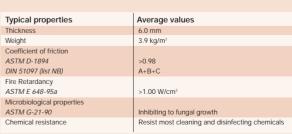
fungus, mildew, UV radiation and most cleaning and disinfecting products.

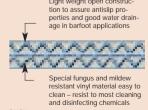
Applications: Ideal for barefoot only traffic applications in changing rooms, around swimming pools and whirlpool baths, around saunas, shower and bath

Colors: horizon blue and wheat











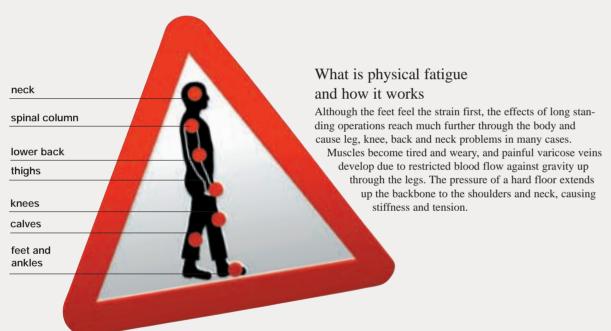


Why Antifatigue Matting?

The quality of life of millions of workers and the competitiveness of European companies is constantly challenged by the consequence of working in tiring positions. Most of the people who work standing up all day suffer from pain and discomfort.

3M™ Safety Walk™ cushion matting is a straight forward and lowcost solution to reduce physical fatigue and its impact on productivity.

Standing all day at work on a hard floor brings pain and discomfort to seven sensitive areas.



The economic consequences to European businesses include:

- Compensation and insurance costs
- Lower productivity and bad quality of work
- Increase in health problems and early retirement
- · Greater absenteeism and union actions
- · Loss of experienced staff
- Investment of money in recruiting and training new staff

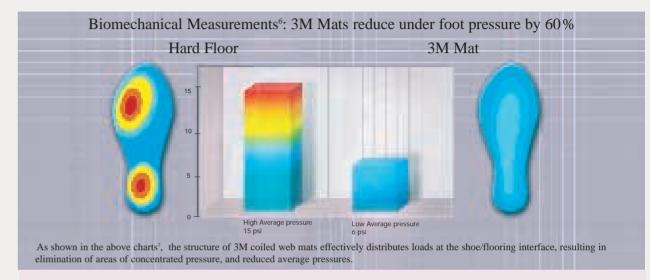
According to the "European Foundation for the Improvement of Living and Working Conditions"3:

- 30% of all Europeans suffer from backache
- 17% suffer from muscular pains in arms or legs
- 23% of all health related absenteeism is due to work causes.

Musculoskeletal Disorders (MSDs) account for up 50% of all work-related ill-health and affect over 40 million European workers. The economic cost of this is estimated to be between 0.5% and 2% of Gross National Product.4

3M[™] Safety-Walk[™] Antifatigue Matting make a difference

The impact of standing operations can be measured through physiological studies and biomechanical measurements. Formal University physiological studies prove the significant impact 3M mats have on reducing overall tiredness, back pain and discomfort in lower body parts.5



All 3M Safety-Walk Antifatigue matting has been designed to provide:

- Extra comfort to reduce fatigue and discomfort and improve productivity
- Consistent performance in

time: contrary to most rubber coverings, 3M Antifatigue matting has a consistent action all along its life

- · Antislip action to reduce accidental slips and falls
- · High chemical resistance to
- oil, grease, and detergents
- Noise absorption and reduced damage to dropped tools and products
- Light weight
- · Easiness to clean

"Safety-Walk Antifatigue matting really works!"

The "Pirotta" company is a subcontractor of some of the most important car manufacturers in the Automotive Market based in



Turin/Italy. Its workers have to carry on many standing operations and, at the end of the day, they used to complain of muscular pain in their legs and backache.

"Safety-Walk Antifatigue matting really works! Now my workers don't complain of physical fatigue any more, they very much appreciate the cushioning properties of the mats. Someone even asked me if she could stand and work bare foot... of course I cannot allow such a practice, but at Pirotta workers know that somebody cares about them." Mr Pirotta, owner of the company



[&]quot;Effect of Floorine on Standard Comfort and Fatigue", by Rakie Cham and Mark S. Redfern – Univ. of Pittsburgh. In terms of time necessary to reach discomfort in standing positions, 3M's coiled construcmatting reported the following advantage compared to hard floor: overall tiredness: +40%; lower back discomfort: +50%; foot discomfort: +180%. Results are most dramatic after the third hour of standing. Est method: Techscan Load Distribution Measurements expressed in PSI (pounds per square inch). For additional details see: 3M Technical Bulletin TB-M-150, "Anti-fatigue Mats: an ereonomic solution in the



second European Survey on Working Conditions by the European Foundation for the Improvement of Living and Working Condition

⁴ OSHA Fact Sheet no. 3 "Work-related musculoskeletal disorders in Europe", 2000.

Based on Techscan load distribution measurement.





3M[™] Safety-Walk[™] Cushion Matting 5100

Description: Durable, flexible vinyl mat with an open construction for safety and comfort. Its Z-web structure helps improve traction and provides good cushioned support. The open construction lets liquid and small particles pass through, providing a safer, drier surface. Its construction allows easy traffic of carts over the surface. The vinyl composition provides

excellent resistance to a variety of chemicals, greases and detergents found in industrial or food service environments.

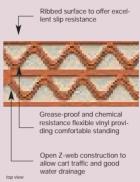
Applications: For use in food service or industrial applications to provide excellent antislip properties and a good cushioning

Colors: black and red

Edging profiles: Optional tapered vinyl profiles are available to provide continuity from the floor to the mat and allow easy-wheeled traffic movement. Use 3M Matting Adhesive in combination with 3M Edging profiles to edge mats on the sides exposed to traffic and produce a custom-sized mat.







ypical properties	Average values
Thickness	12.0 mm
Weight	6.9 kg/m ²
Coefficient of friction	
ASTM D-1894	>1.02
DIN 51130	R10
Fire Retardancy	
NF P92507	M3
ASTM E 648-95a	>1.00 W/cm²
Crush recovery from static load	99%
Microbiological properties	
ASTM G-21-90	Inhibiting to fungal growth
Chemical resistance	Resist most chemicals
Antifatigue properties	Good
Antislip properties	Excellent

3M Safety-Walk Cushion Matting 5250-5250E

Description: Antifatigue matting made from continuous coiled vinyl filaments that provide exceptional cushioned support evenly distributed across the bottom of the shoe, reducing leg and back fatigue. The open construction lets liquid pass through, providing a dryer and safer surface. Available with integral (5250E) edging that

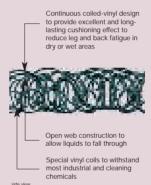
allows the movement of wheeled traffic and helps provide continuity from the floor to the mat.

Applications: The product is suitable for dry or wet work areas such as: assembly lines, production areas, other areas exposed to grease and/or oils.

Color: black







Typical properties	Average values
Thickness	16.0 mm
Weight	5.00 kg/m ²
Coefficient of friction	
MIL-D-17951 E	Dry: 1.40 Oily: 0.28
Fire Retardancy	
NF P92507	M3
ASTM E 648-95a	0.75 W/cm ²
Noise Reduction Coefficient	
ASTM D 423-90A	5%
Chemical resistance	Resist most chemicals
Antifatigue properties	Excellent
Antislip properties	Good

3M Safety-Walk Cushion Matting 5270-5270E

Description: A flat top surface antifatigue matting made from continuous coiled vinyl filaments that provides exceptional cushioned support evenly distributed across the bottom of the shoe, reducing leg and back fatigue. The textured top, helps improve traction and allows debris and liquid to stay on top of the mat for easy cleanup.

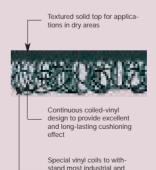
Available with integral edging (5270E) that allows the movement of wheeled traffic and helps provide continuity from the floor to the mat.

Applications: The product is suitable for dry work areas such as assembly lines, production

Color: black







cleaning chemicals

Typical properties Average values Thickness 16.0 mm 6.45 kg/m² Coefficient of friction MIL-D-17951 E Dry: 1.60 Oily: 0.44 Fire Retardancy ASTM F 648-95a 0.75 W/cm Noise Reduction Coefficient ASTM D 423-90A 15% Chemical resistance Resist most chemicals Excellent Antifatigue properties Antislip properties Good

Routine Maintenance and/or mopping of



Periodic Maintenance Shake mat vigorously to



2. Clean up debris under and around the mat.



surface of mat and place



The right product for the right application





Antislip Surfacing	Common Steps, ramps & platforms	Irregular Surfaces and diamond plates	Muddy or oily surfaces	Barefoot areas
General Purpose	a			
Coarse			6	
Conformable				
Medium Resilient				€
Fine Resilient				
Wet Area Matting 1500				
Wet Area Matting 3200				
Examples:	Commercial & Home	Industrial locations	Industrial locations	Swimming pool areas
	Industrial locations	Warehouses	Farm machinery	Locker rooms
	Food service areas	Shipyards	Construction equipment	Shower and Bath areas
	Machinery		All terrain vehicles	Ships & boats
	Trucks		Cranes	Healthcare settings
	Ships		Lorries	Sports settings & equipment
	Storage rooms			
	Healthcare settings			



Antifatigue Matting	Dry Areas	Wet Areas	Antifatigue properties	Antislip properties
Cushion Matting 5100	E	a	Good	Excellent
Cushion Matting 5250-5250E	€S	a	Excellent	Good
Cushion Matting 5270-5270E	a \$		Excellent	Good
Examples:	Food service areas	Food service areas		
	Industrial locations	Industrial locations		
	Commercial areas	Commercial areas		

Some ideal application areas of 3M[™] Safety-Walk[™] products







Industrial Applications

- loading docks
- stairwells
- ladders
- fire escapes
- airplane hangars
- cold storage areas
- · warehouse floors

Food Service Applications

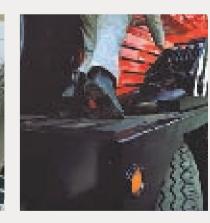
- food preparation areas
- cafeterias
- · dining rooms
- · meat-cutting stations walk-in coolers
- freezers

Sports Applications

- locker room floors
- showers
- saunas
- · swimming pools
- recreational boats
- · skateboards







Commercial & Home **Applications**

- ladders
- · step tools
- bathtubs
- showers
- pool areas, balconies
- marble and tile floors
- · floors in retail setting
- different sections in supermarkets

Healthcare Settings Applications

- · around therapy tubs
- · wheelchairs
- bathroom areas
- · heavy traffic corridors
- · waiting rooms
- surgical rooms
- · emergency rooms

OEMs (Original Equipment Manufacturers)

- · fire engines
- · ambulances
- cranes
- farm equipment
- transportation industry (buses, aircraft, trains...)



Caring about safety and comfort...



Alstom, street-cars (Poland)



Prague Underground, station stairway (Czech Republic)



Deutsche Bahn, areas between train coaches (Germany)



Snecma (France)



Tunturi, treadmill (Finland)



Bateaux Mouches (France)



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