

SAFETY BULLETIN

Part 4: Slip, Trip and Fall Prevention



DEVELOPING A FLOOR MATTING PROGRAM TO REDUCE SLIP, TRIP AND FALL EXPOSURES

Floor mats are a critical component of a venue's floor safety program. They may also be the most overlooked and commonly misused component. Floor mats are the first line of defense to combat against slip and fall incidents as employees and patrons enter the facility. Floor mats can be very effective in preventing slip and fall incidents. However, improper mat selection, improper mat installation, and improper care and maintenance can actually contribute to slip and falls as well as trip and fall incidents. Ultimately, floor mats should:

- Stop soil and water at the venue's entrance
- Minimize tracking of soil and water

DEVELOPING A FLOOR MATTING PROGRAM

TO REDUCE SLIP, TRIP AND FALL EXPOSURES

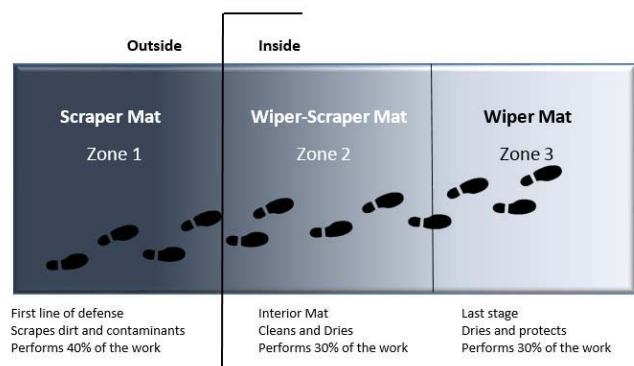
- Be slip resistant
- Be free of trip and fall exposures – (rolls, ripples, buckles or curls)
- Stay in place when walked on or hit by a moving object such as a cart

FLOOR MATTING STANDARD

In 2012, the American National Standards Institute (ANSI) released the latest in the line of walkway safety standards – the ANSI B101.6 – 2012, *Standard Guide for Commercial Entrance Matting in Reducing Slips, Trips and Falls*. This standard provides criteria for the selection, installation, inspection, care and maintenance of entrance mats in commercial facilities in an effort to reduce slip, trip and fall incidents. The ANSI B101.6 standard provides valuable information that can help venue owners and operators maintain safer walking surfaces and reduce slip, trip and fall exposures. It is definitely in the best interest of venue owners and operators to comply with the ANSI B101.6 standard as failure to comply could make it very difficult to defend a floor mat related slip and fall or trip and fall claim should one arise.

PROPER MAT SELECTION

Selecting the proper floor mat is critical as not all mats are alike or serve the same purpose. In fact, choosing the wrong mat can create a false sense of security and can actually increase the likelihood of a slip and fall or a trip and fall incident. To begin with, all mats should have a “high-traction backing” to prevent movement or “migration” while people are walking on it. Mats that do not have high-traction backings are more prone to movement, which not only increases slip and fall exposures, but can buckle and curl which increases trip and fall exposures. Venues should consider purchasing only mats that are NFSI Certified as “High-Traction” to ensure that the mats they are using provide the highest level of slip resistance.



The proper selection as it pertains to the placement and intended purpose is also very important. There are several types of mats, each specifically designed for a specific use.

SCRAPER MATS

Scraper mats are designed as the first line of defense to remove and retain heavier and larger soils through contact with footwear. Scraper mats usually have a raised, coarse or rough surface that can effectively “scrape” soil and contaminants off of shoes.

WIPER-SCRAPER MATS

Wiper-Scraper mats are the second line of defense and are designed to moderately dry and wipe the shoe and scrape way remaining debris.

WIPER MATS

Wiper mats are generally the third and final line of defense with regard to matting. They are for indoor use only and are designed to remove moisture, contaminants, dust and finer soils from footwear. Wiper mats should be used in combination with a wiper-scraper and scraper mat to be effective.

The following table summarizes where the various mat types should be positioned.

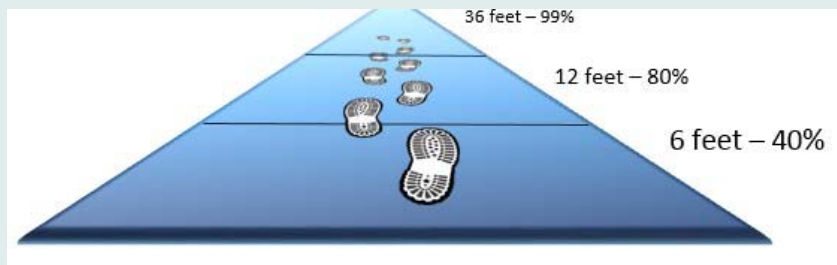
FLOOR MAT SELECTION TABLE:

OUTDOORS	VESTIBULE	INDOORS
<ul style="list-style-type: none"> • When matting is located outside a building, it should be either a scraper mat or a wiper-scraper mat. • Outdoor mats can be loose laid or permanently installed with a recessed well mat/foot grille. 	<ul style="list-style-type: none"> • When a scraper mat is used outdoors, the matting in the vestibule should be a wiper-scraper or a wiper only mat. • When a scraper mat is not used outdoors, the vestibule matting should be either a scraper only or a wiper-scraper mat. 	<ul style="list-style-type: none"> • When a scraper mat is used outdoors, the matting indoors should be a wiper-scraper or a wiper mat. • When a scraper mat is used outdoors and a wiper-scraper mat is used in a vestibule, the matting indoors should be a wiper mat. • When no scraper mat is used outdoors, then the indoor matting should both scrap and wipe. This can be accomplished with either a scraper mat followed with a wiper mat or be a wiper-scraper mat. When separate mats are used, scraper mats should be the first mat at the entrance. Wiper mats should be the second mat at the entrance.

FLOOR MAT COVERAGE

For matting to be effective, multiple contacts with footwear need to be made to achieve its purpose of removing soil and moisture. According to a whitepaper prepared by the Windsor

Company, a typical six foot mat only removes 40% of the soil and moisture, and it takes approximately 36 feet of matting to remove 99% of the soil and moisture. Weather conditions also come into play. It will require more



matting for snow than it would for rain and even less if the conditions are dry, hence, during inclement weather, additional matting should be utilized to supplement the dry weather matting. To confirm the adequacy of the matting that is used, the flooring following the matting should be examined. If the floor is wet and/or soiled then: 1) the wrong type of matting may be in place; 2) the matting is saturated and needs to be cleaned and/or replaced; or 3) there is not enough matting.

FLOOR MAT CARE AND MAINTENANCE

Mats should be inspected on a regular basis to ensure that they are not saturated and dirty. In fact, weather conditions and/or crowd size may dictate that the venue's mats need to be inspected several times during a single event. Having additional mats available to replace saturated and dirty mats in the middle of an event may be necessary. Additionally, while the purpose of mats is to reduce slip and fall exposures, defective mats can actually create trip and fall exposures. Mats should also be inspected for defects that can cause trip and fall exposures such as rolls, ripples, buckles and curls.

Regular cleaning and maintenance of floor mats according to the manufacturers' specifications should be strictly followed to ensure that they remain effective in removing moisture and soil. The method of cleaning mats might include vacuuming, sweeping, removing the mat and shaking out any dirt and debris, professional laundering or power washing. Mats with defects that cannot be fixed, such as ripples, curls or worn carpet fibers should be discarded and replaced.

CONCLUSION

Unfortunately, there is no one-size-fits-all approach for matting as all venues are different. Each solution must be specifically tailored and carefully tested for adequacy at each location within a venue. The only way to ensure that the matting program is effective is to constantly inspect both the mats and the flooring beyond the mats. If there are rolls, ripples, buckles or curls on the mats and/or wet footprints and dirt on the floors, then the matting is ineffective, and the situation needs to be addressed. Developing a comprehensive floor matting program that is

consistent with the ANSI B101.6 standards is an excellent way to enhance a venue's floor safety program.

Selecting the proper mats, placing mats in the proper location, and ensuring that they are properly maintained can play a significant role in reducing slip, trip and fall exposures.

If you or your staff have any questions concerning this important Safety Bulletin, please contact us today.



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