



PRSM &amp; Members' News

## A New Weapon in the War Against Trips and Falls



**You see them every day. They're everywhere. And they're waiting to trip you up.**

Carpeted rubber-backed entrance and floor mats can be found on the floors of nearly every commercial site. Whether it's your local bank, the nearest airport, your doctor's office, the fancy hotel, or the factory floor of the plant you work in, thousands of these carpeted rubber-backed floor mats are lying in wait to cause you serious injuries. That wasn't the intent. They are supposed to stop dirt and moisture at doorways to keep facilities clean and dry. And for decades, however imperfect they may have been, rubber-backed entrance mats have been pretty much the only solution available.

### What's wrong with them?

For starters, they NEVER stay where you put them. Even though they are heavy, rubber-backed mats shift and slide across the floor and out of the spots where you need them. Employees continuously need to bend over and pull these heavy mats back into position throughout the day. "When you have shopping carts running across rental mats, they will move thirty feet in the course of the day," said Mike Rohrbaugh, Market Basket Supermarket Vice President and Division Manager. "So everybody was constantly bending over and moving them back." So that makes them a hassle and inconvenient, but do they really present a risk factor?

### Here's why they're dangerous.

A standard carpeted floor mat gets used for years, and if it's a rental, it is laundered and replaced weekly. This extended use and the fatigue induced by the commercial laundering process wears down the mats. The edges become rippled (sometimes referred to as "bacon mats") and misshapen. Also, because the rubber-backed mats don't actively adhere to the floor, corners can flip over and bunching or wrinkling can occur at various places on the mats. Additionally, carpeted mats are supplied in fixed sizes and shapes, which means there are usually gaps between where one mat ends and the next one begins. Those gaps allow walk-off moisture to drip from shoes and make bare floors slick. All of this rippling, flipping, bunching, gapping, and sliding can create serious trip hazard conditions leading to falls and injuries.

### How bad is it?

- Compensation and medical costs associated with employee slip/fall accidents is approximately \$70 billion annually (National Safety Council Injury Facts 2003)
- Slips and falls account for over 1 million hospital visits annually (National Floor Safety Institute - (NFSI))
- Slips and falls represent the primary cause of lost days from work (NFSI)
- Slips and falls are the leading cause of workplace injuries with over 197,000 reported in 2015 (Bureau of Labor Statistics)
- Falls on same level ranked second in the top 10 causes of the Most Disabling U.S. Workplace Injuries at 17.7% and a cost of \$10.62 billion (2017 Liberty Mutual Workplace Safety Index)
- 85% of workers' compensation claims are attributed to employees slipping on slick floors (Industrial Safety & Occupational Health Markets, 5th edition)
- For facilities that host public traffic (shoppers, guests, travelers, students, patients, etc.) the financial exposure becomes even more acute due to personal injury lawsuits



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In the event of an injury claim or litigation, the use of rubber-backed mats can expose a business to serious liability because they frequently fall out of compliance with accepted floor safety practices.

In 2012, The American National Standards Institute (ANSI) and NFSA released B101.6-2012 "Standard Guide For Commercial Entrance Matting In Reducing Slips, Trips And Falls," The Standard states, "when mats ripple, curl or have torn edges, they are to be removed from service and replaced with mats that lay flat. If a mat buckles, either the condition that caused the mat to buckle shall be corrected or the mat shall be secured or removed from service and replaced."

B101.6-2012 also makes it clear that the responsibility for selecting and maintaining safe floor mats rests squarely on the facility manager's shoulders. And although the standard is voluntary, the choice to comply or not to comply can determine the outcome of a slip-and-fall lawsuit: showing you're in compliance will bolster your legal defense, while failing to comply can be perceived as negligence.

#### What can we do about it?

If you are still married to the use of rubber-backed carpeted mats, or maybe locked into a long-term rental agreement, then it's up to the facilities manager to manage their use carefully. Below are some prudent steps you should take:

1. **Plan and audit placement locations.** Make sure the mats are in every place where safe footing might be at risk. This includes (but is not limited to) entrance ways, transition areas (from plant to office), water fountains and restrooms, lobby areas adjacent to entrances, and any plant location where process liquids or water might be present. Because they will creep out of position, your employees will need to check rubber-backed mat positions throughout the day and make sure they are dragged back to where they are needed.
2. **Have enough mats!** Make sure you cover ALL the potentially slippery floor areas and do not leave gaps between mats. Gaps create walk-off slip areas because walkers accustomed to the higher traction of the mat surfaces often fail to adjust their gait when transitioning to the bare floor.
3. **Frequently inspect the condition of the mats.** If they show excessive wear with any rippling edges, tear, rips, or worn patches, replace them. This can be a continuous challenge if you are renting your mats because the laundering and rental companies often do not return the same mats to facilities each week. Essentially, you are at risk of getting someone else's worn-out mat.
4. **Have extra mats for rainy days.** Because carpeted rubber-backed mats do not adhere to the floor, it can be challenging to remove excess moisture on bad weather days when entrance mats get saturated. Wet-vacs will pull the mats up into the suction nozzles and block the airflow. For this reason, it may be necessary to replace wet carpeted mats with extras you keep in store rooms or maintenance areas. Be careful carrying them, they're heavy.

#### Is there another way?

Yes. New Pig Corporation, the global leader in providing product solutions for leaks, drips and spills, has developed a line of floor mats called **PIG Grippy Floor Mats**. They are extremely durable disposable absorbent mats with an adhesive backing. They are available in continuous rolls that users can cut to fit, and they're also available precut to the most common sizes. The adhesive backing is the key and enables them to bond securely to the floor so there is no shifting, wrinkling, rippling or flipping. The adhesive backing locks them in place but peels up easily when it's time to replace them. They are designed to last up to three months before change-outs and keep floors drier and safer than the standard carpeted rubber-backed mats.

#### Do they really work?

Yes. In the fall of 2013, Mike Rohrbaugh, Market Basket Supermarket Vice President and Division Manager, was impressed enough with the Grippy Mat demonstrations to give them a try in his supermarket chain. Replacing their rental mats with PIG Grippy Floor Mat provided immediate and dramatic results for Market Basket. Because of the adhesive backing, the mat laid flat and stayed flat with absolutely no shifting, bunching up or flipping over. Slip and trip hazards were virtually eliminated overnight. Associates and managers didn't need to spend valuable time putting mats back where they belonged. Shopping and stocking carts easily rolled over the mat with no creeping or bunching up under the wheels. Even loaded pallet jacks could roll across without affecting the surface or lifting the adhesive.





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**Are they expensive?**

No. Another surprise for Market Basket was Grippy Mat's outstanding durability. During the initial test, Rohrbaugh and his managers expected ten weeks of use, but it stayed on the job a full sixteen weeks before they decided to change it out — translating into \$120,000 in annual cost savings.

"Cost-wise, we broke even after only two-and-a-half weeks," says Rohrbaugh. "And the mat is easy to keep clean. We vacuum every night and it doesn't lift up. We even use our Rug Doctor carpet scrubber on it occasionally."

**What's next?**

If you are determined or locked in to using rubber-backed mats for the foreseeable future, there are ways to mitigate your risk with some careful planning and attention. It takes some work, but even using that older set of tools, your workers and customers don't have to be at risk just by walking through your facility. If you are ready to step up to the next level of protection, solutions like PIG Grippy Floor Mats can create an even safer environment and save you money operationally and with reduced payouts for injury claims.

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