



# Controlling Wet and Slippery Floors

Slip and Fall Prevention



Wet substances on hard surface flooring are a primary factor in slips and falls. Controlling the introduction and removal of moisture and other slippery contaminants is key to prevention, as moisture creates a thin film that separates the soles of the footwear from contact with the floor, reducing traction.

Various flooring materials have different slip-resistance ratings. In most instances, we think of shiny tile floors being slick when wet, but we also have to consider other surfaces such as concrete, metal stairs and plates. Many industrial operations have concrete floors that are polished or may have oil residues that become slippery when water is introduced.



The keys to controlling slips and falls on wet floors include:

### Inspection and Response

Periodic observation of floor surfaces by designated employees or the building services contractor is the only way to identify wet or slippery conditions. Proper floor-cleaning practices can also reduce the potential for slippery conditions.

Regular inspections should be made of areas that have been identified as frequently wet. For example, during rainy or snowy days, the floors in building lobbies or other entrances should be monitored. Manufacturing facilities and labs also experience moisture on walking surfaces, and observation is critical to cleanup. Instruct employees to look for wet or unsafe floors and advise them how to respond. When more people look for unsafe conditions, early identification is more likely.

When a wet condition is found, there should be a procedure in place for cleanup.

- Have applicable cleaning and drying supplies available.
- Give authority and provide training to delegated personnel or employees to enable them to act quickly to remove the condition.
- Always secure the area from foot traffic with warning tape, cones, barricades, signage and locks while cleanup supplies are retrieved.

### Identify and Mitigate the Source of Moisture

When a routine inspection finds slippery conditions, the next step is to determine the origin.

Moisture can originate from a variety of sources, including:

- General public carrying drinks or food, resulting in spills or drips
- Pedestrians tracking moisture into the building
- Machinery or piping leaks
- Splashes from drinking fountains and in restrooms
- Ice on floors near ice machines and beverage stations
- Condensation from high humidity
- Wet floors from normal wet mopping functions

Eliminating all moisture sources may not always be possible because they might be part of the manufacturing process. However, leaks can and should be repaired. Other examples of moisture mitigation methods include:

- Posting rules restricting food and beverages in the area.
- Using nonslip flow-through mats near ice machines.
- Using absorbent walk-off floor mats for weather-related moisture.
- Running a dehumidifier or fan when floors are moist from humidity.
- Putting up barriers or stanchions with warning tape to indicate a safe walking path away from the moisture accumulation area. This path can be moved side to side as an area is cleaned and dried.
- Increasing the frequency of mopping and drying. In kitchens, frequent cleaning and rinsing are not feasible during busy business hours. This level of cleaning should be performed daily at the end of the shift.
- Using proper techniques when wet mopping is performed during normal business hours, such as:
  - Mopping only one side of a hallway or walkway and restricting pedestrian traffic with cones or barricades. Only start the other portion once the floor is dry and safe for foot traffic.
  - Mopping followed by dry mop or fan for expedited drying.
- Using squeegees to remove water carried in by forklifts and pedestrians in production or dock areas.
- Ensuring an adequate supply of paper towels to clean moisture in cafeterias, beverage islands, breakrooms and restrooms. Trash cans should be placed in the area for disposal of paper towels.
- Providing plastic umbrella bags or baggers at entrances can reduce water from being shaken off umbrellas beyond the mat coverage. (See Figure 1.)



Figure 1

### Response Action Plan

A walking surface hazard cannot go unattended, as a person walking through the area can have a severe slip and fall accident.

A formal action plan includes:

- Having a procedure for prompt spill or weather-related cleanup.
- Assigning properly trained personnel to clean or mitigate the hazard and someone responsible for notifying the building services vendor.
- Posting a designated person at the spill to warn pedestrians until the "Wet Floor" sign is retrieved.
- Determining and defining when walking surfaces need re-cleaning such as deep cleaning, new surface coatings, etc.
- Investigating the floor contaminant(s) and how it got there. Develop a plan to reduce recurrence. If the hazard was part of a slip and fall incident, an **incident investigation** should be conducted.
- Arranging for floor slip resistance (tribometry) testing to verify that the dynamic coefficient of friction (DCOF) level is  $\geq .42$  for (ID) Interior dry, (IW) Interior Wet, .50 (IW+) Interior Wet Plus, .55 (EW) Exterior Wet, .55 (O/G) Oils/Grease. This can be accomplished by contracting the services of a [floor slip-resistance vendor](#) to provide tribometry or remediation services.

### Slip-Resistant Treatments or Coverings

Areas where moisture is common may require physical surface improvements such as:

- Roughing or etching
- Application of nonslip coatings with abrasive material on steps and ramps
- Replacement of flooring with a material intended for slip resistance in wet conditions and that has a manufacturer's designed DCOF rating is rated for the intended use and equal to or greater than .42 for (ID) Interior dry, (IW) Interior Wet, .50 (IW+) Interior Wet Plus, .55 (EW) Exterior Wet, .55 (O/G) Oils/Grease.
- Applying slip-resistant abrasive tapes or self-adhesive mats
- On metal surfaces such as dock plates, using diamond plate material to provide additional traction

### Floor Mats and Slip-Resistant Footwear

Moisture may not be eliminated, especially in poor weather conditions and wet work environments such as labs, kitchens and various industrial operations. Public indoor walking areas need to incorporate a floor mat program designed for the specific wet floor area. See [Floor Mat](#) section.

Workers who encounter wet and slippery walking surfaces as part of normal operations are advised to wear slip-resistant footwear designed for the specific slippery condition.

Learn more about [managing slip and fall risks](#) at [cna.com/riskcontrol](https://cna.com/riskcontrol) (US) or [cnacanada.ca](https://cnacanada.ca) (Canada).