Flooring Solutions That Have Traction

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Industry Concerns

- * Impact to industry?
 - * Pain and suffering of associates and customers
 - * Significant costs (direct and indirect)
 - Negative impact to productivity
 - * Potential for unfavorable media & public attention

Slip and Fall Facts



- * Slips and falls are the #1 category of accidental injury in the U.S.
- Floors or flooring materials contribute to more than 2 million fall injuries each year
 - * About one every 16 seconds
- * Average cost of a slip and fall is \$28,000
- Death from S/F on-the-job injury is estimated at a cost of \$940,000

Slip and Fall Facts



- 85% of all employee slip and fall claims stem from an employee falling on a slick floor
- The majority of all falls lead to compensation, about 60% occur at ground level
- Annually, employee falls account for about \$70 million in compensation and medical bills

Floor Safety Facts

Most dry surfaces are slip-resistant (0.5 SCOF or higher)



- * Slips/falls occur when floor is wet and/or contaminated (dust, grease, oil, etc.)
- * Transitions from "non-slippery" to "slippery" floors are especially problematic
- Slipperiness increases over time when the floor is worn

Flooring Specifications and Selection

* Composition – Tile, pavers, vinyl composition tile (VCT), Epoxy - Methyl Methacrylate (MMA), Terrazzo, laminate, hardwood, porcelain, luxury vinyl tile (LVT), polished concrete, others?

* Has your company established a specification for flooring coefficient of friction (COF)?

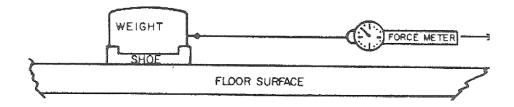
* Measured 0 to 1.0

- * 0.0 = No traction
- * 1.0 = Traction (ex. rubber soles on carpet)

Flooring Specifications and Selection

What is COF?

- * Derived by dividing the horizontal force required to slip, by with the vertical force (weight) of the object
- * Example: 5# horizontal force required to cause a 10# item to slip, results in a COF of 0.5



Flooring Specifications and Selection

* "Cleanability" & maintenance

- * What is required to clean and maintain it?
 - * Does your current cleaning process support the flooring material?
 - * Are new chemicals required?

Flooring Specifications and Selection

- * Durability
 - * Traffic level and wear resistance
- * Repairs
 - * Challenging or easy?
 - * Costly or economical?



- * Warranty
 - * Got that in writing?

- * Floor maintenance (throughout day)
 - Spot mopping, floor walks or sweeps
 - * Safety audit team store visit
 - * Store floor walk, collect debris, provide insights
- * Floor cleaning (nightly)
 - * How do you clean your floors?
 - * Scrub machine or mop?



- * Utilize floor sweeps?
 - * Frequency?
 - * Execution level?
 - * Documented pros and cons?
 - * Stories to share
 - * Recordkeeping?
 - * Paper or electronic

- * Floor self-audit technology
 - Location specific
 - * Scan of magnets or barcodes
 - * Real time cell phone technology using web based app
 - * Technology using the "cloud"
 - * Picture of floor condition at each inspection site is uploaded
 - * Others?

- Auditing or inspecting floor conditions
 - * Foundational to floor safety program
 - * "Inspect What You Expect"



- * Who conducts the audit?
 - * Store associate? Corporate? Both? Third party?

- Safety software for auditing
 - * Multiple vendors provide turn-key solutions
 - * In-house development
- * Defining audit criteria
 - * Cracks, uneven surfaces, freezer or cooler leaks
 - * Droplets around floral displays, floor debris, roof leaks
- * Follow up process to address documented hazards?

Inside the Store

Spill Clean Up Equipment/Program

Spill Station with proper equipment

Fixed



Mobile



Carry on Wheels



Inside the Store

Key is assigned responsibility for maintaining each spill station and the related equipment

- Effective Material:
 - Floor Absorbent Strips



- Absorbent Powders
- Supervisors accountable
- Areas audited



Inside the Store

Caution Cones



Unique Hurricone®



Floor Fans



Inside the Store

Floor Treatments

- * Floor etching solutions (various acid strengths)
 - * Ceramic tile, quarry tile, concrete
- * Additives to mop/scrubber water
- * Waxes/polishes
 - * Limitations of COF data offered by manufacturers
 - * Durability is an issue
- * Abrasive floor coatings
- * Use of rugs or mats

Inside the Store

Standard Practice

Standard Practice - Rugs & Mats (Sales Floor)

To help prevent sales floor slip/fall hazards, maintain rugs/mats according to this Standard Practice.

Most mats below are rented from UniFirst through Purchasing. Large rugs used at entry doors are purchased by the store from Matworks (using Purchasing Line). Contact Purchasing with questions.

Rug and mat quality must sufficiently prevent slip, slide, wrinkle, and curling from routine foot traffic and cart use:

- Minimum thickness is 90 mil.
- Bound and beveled rubber edge is required on all rugs and mats.
- Do not tape edges to floor (i.e., no duct tape, packing tape, etc.).

| Daily | • | Greens cases—two (2) 3' \times 10' mats, but as many as four (4) may be needed to cover misters and any overspray |
|-----------------|---|--|
| | • | Any Grapes display, regular or Ad support—one (1) $3^{\prime} \times 10^{\prime}$ mat |
| | • | Cut Flowers case/display—one (1) 3' x 10', but, 2 may be needed (e.g., two-sided display) |
| | • | Any Green Beans display—one (1) 3' x 10' mat |
| | • | $\underline{\operatorname{Iced}}$ Broccoli display—one (1) 3' x 10' mat |
| Winter/Seasonal | • | At Entry Doors—large 10' x 12' mats at each entrance during winter months (December 1st to May 1st) |
| Situational | • | Features (Front) Tables in Produce—3' \times 10' mat(s) during Ad sales on grapes, cherries |
| | • | Cut Flowers bucket/display—one (1) 3' \times 5' mat at each spot display outside Floral |
| | • | Iced Cut Melons/Fruit display—one (1) 3' x 5' mat |
| | • | Customer Service—Service Desk Area—3' \times 10' mats at counter area if puddles develop during rainy/wet weather (10' \times 12' size rug may be needed for some large volume stores) |
| | • | Pharmacy— $3^\prime \times 10^\prime$ mats at wait line and counter area if water puddles during rainy/wet weather $(10^\prime \times 12^\prime$ size rug may be needed for some large volume stores). Also, $3^\prime \times 5^\prime$ mat at Consultation area if not covered by $3^\prime \times 10^\prime$ and water puddles |
| | • | Drinking Water Fountain—one (1) $3^\prime x5^\prime$ mat if fountain is located in footpath and water tends to be on the floor |
| | • | Water Vending Machine—one (1) $3^\prime \times 5^\prime$ mat if machine is located in footpath and water tends to be on the floor |
| | • | Coin Star machine—one (1) 3^{\prime} x 5^{\prime} mat if water puddles in footpath |
| | | Red Box machine—one (1) 3' x 5' mat if water puddles in footpath |

Inside the Store

Education and Training (for associates, formal and customers, indirectly)

- Various methods to communicate
- * Awareness
- * "Don't Pass It Up, Pick It Up!" George W. Jenkins,
 - founder of Publix
- Carrying a paper towel

Inside the Store

Testing for Floor Conditions

- Slip meters for floor testing
 - * Which meter? Static or dynamic meters available
 - * Testing COF Wet or Dry or Both?
 - * ANSI and ASTM have established test methods for measuring COF
 - * Also standards for floor matting and other material used to improve floor safety



Inside the Store

Associates' Safety

- * Associates Slip Resistant Footwear Program
 - * Slip resistant footwear program for associates
 - * Benefits Shoes go wherever the associate goes
 - * Composition of soles determine effectiveness on floor
 - Slip resistant vs. oil resistant, water resistant, and skid resistant
 - Typical repeating tread pattern

- Cleaning of shoe soles
- Footwear sole effectiveness (Three months to one year)
 - Dependent on multiple factors
 - Floor debris and environment
 - * Floor surfaces walked on

Inside the Store

Customers' Safety

Umbrella Bags



Rugs



Bouquet Bags



Inside the Store

Injuries

- * Investigations
 - * What's on the floor?
 - * Why?
 - * How did it get there?
 - Was CCTV checked to identify any beneficial information
 - Created customer injury packet for stores

Outside the Store

Snow

- * Use of salt
- * Snow plow contracts
- "Cut Throughs" can be a problem
- * Rock beds
- * Flower beds
- * Planters



Planter Cut Throughs



Front Entrances



Outside the Store

Curbs – addressing flare curbs

Before



After



Outside the Store

Drainage

Parking Stops – addressing trips

Before



After



Outside the Store

- Reflective, painted parking lines and other markings on asphalt or concrete
- Fine aggregate (Sharkskin, micronized polymer glass, or other fine aggregate)

Inside and Outside

- * Lighting
- * Stairs
- * Handrails
- * Ramps

Note: These are factors that can be attributed to inside or outside.

More Information

* ANSI Standards

* Liberty Mutual

* National Floor Safety Institute (NFSI)

Questions

