

# Better Safe Than Sorry

*Non-slip flooring can reduce slips and falls—and litigation—in your schools.*

by Walter E. Wilson

Every floor, in every school, is a potentially dangerous walking surface. Liquids are spilled in science rooms and cafeterias. Surfaces become slick after custodians mop or wax. Snow, water and mud are tracked onto steps and floors. These factors contribute to the high risk of slips and falls in schools and the resulting legal ramifications, such as workers' comp claims, disability insurance—even litigation.

A growing body of safety regulations from government and other agencies is working its way into both public

and private educational facilities. And with good reason: Students, employees and the public need to be protected from slip-and-fall accidents. But what protects schools?

With slip-resistant, safe flooring, schools can reduce accidents, comply with laws and regulations, win slip-and-fall litigation cases and, perhaps most importantly, provide a safe environment.

### What You Need to Know

The National Safety Council says more than one-third of all workplace injuries

are caused by slip-and-fall accidents. A major percentage of these injuries occur on the same level—as opposed to a fall from one level to another.

*Slip resistance* is defined by the Standard Practice for Safe Walking Surfaces (ASTM F 1637-95) as "the relative force that resists the tendency of the shoe or foot to slide along the walkway surface. Slip resistance is related to a combination of factors, including the walkway surface, the footwear bottom and the presence of foreign material between them." Actually, the friction between a per-

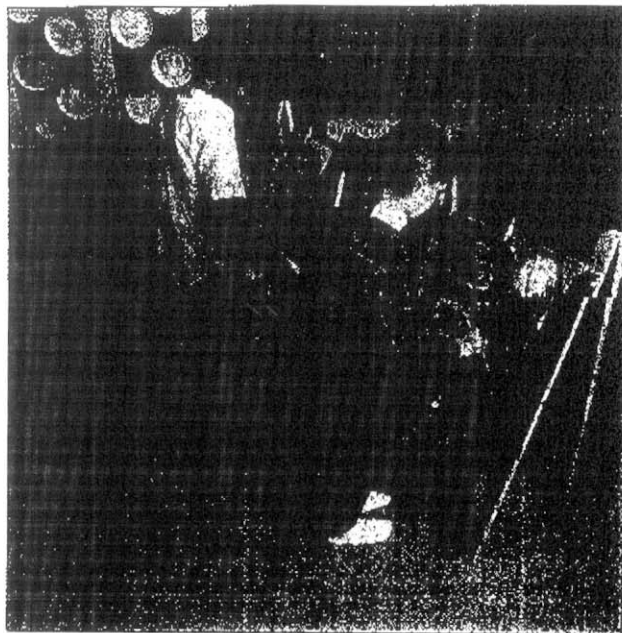
## COMPARISON OF FLOORING SURFACE PERFORMANCE\*

MATERIAL	Resistance →					Other Factors →						
	SLIP RESISTANCE (DRY & WET)	WEAR	IMPACT	INDENTATION	GREASE	EASE OF MAINTENANCE	SEAM INTEGRITY	HYGIENE	SPEED OF INSTALLATION	UNDERFOOT COMFORT	SOUND REDUCTION	APPEARANCE
SHEET VINYL—SLIP-RESISTANT	Initial—E; Long-term—E or G (depending on type)	E	E	G	G	F	E	E	G	G	F	G
SHEET VINYL—STANDARD	F	G	G	G	G	G	E	E	G	G	F	E
VINYL COMPOSITION TILE—(VCT) SLIP-RESISTANT	Initial—E; Long-term—F	F	P	P	G	F	P	F	E	F	F	G
VCT-STANDARD	F	F	P	P	G	G	P	F	E	F	F	G
LINOLEUM	F	E	G	F	F	G	G	G <sup>2</sup>	G	G	G	E
RUBBER	G	G	E	F	P	G	F	F	G	G	E	G
EPOXY—SMOOTH	P	G	P	E	E	G	E	E	P	P	P	F
EPOXY—TEXTURED	Initial—E; Long-term—F	G	P	E	E	F	E	G	P	P	P	F
QUARRY TILE—SMOOTH	F	E	P	E	E	E	F	F	F	P	P	F
QUARRY TILE—TEXTURED	Initial—E; Long-term—P	F	P	E	E	P	F	F	F	P	P	F

Key: E = excellent G = good F = fair P = poor

\* This is a general guide only. Products and circumstances will vary. Source: *Walking Safely by Design: What You Need to Know About Safe Flooring*. Compiled by Walter E. Wilson for Altro Floors.

## NON-SLIP FLOORING



**Slip-resistant sheet vinyl floors reduce accidents, comply with all legal requirements and demonstrate due diligence. They also protect the subfloor from water when seams are welded.**

son's shoe sole or bare foot and a walking surface is the phenomenon that can keep a person from slipping. But this friction can be easily lost.

To determine the slip resistance of any school's floor surface, its *Static Coefficient of Friction* (SCOF) can be measured. SCOF measures the traction between a person's shoe sole or bare foot and the walking surface. However, there continues to be debate as to which testing methods are most effective in determining slip resistance. In many cases, practical experience and/or testing areas of different surfaces can be the best guide for the safety of any specific area in the school.

For nearly all new or renovated schools, three concerns must be addressed before selecting a floor surface: legislation, regulation and litigation.

**Legislation.** Legislation includes laws, such as the Americans with Disabilities Act of 1990 (ADA), that describe specific safety requirements to protect the public against hazards. These laws reveal the minimum precautions that must be taken by those responsible for the property. Of equal importance, these laws specify punishment if the safety requirements are not met.

The ADA requires a minimum SCOF of 0.6 in level areas and 0.8 on ramps. Also, accessible routes must be "stable, firm and slip-resistant" and new construction or alterations must use surface materials "resistant." The ADA recommends "choosing the material with the higher coefficient of friction, particularly for ramps."

**Regulation.** This includes the body of laws, building codes, guidelines and recommendations created by organizations such as the Occupational Safety and Health Administration (OSHA). While regulations sometimes fall

short in specific recourse for non-compliance, they are frequently and successfully used by plaintiffs to prove their cases.

The Occupational Safety & Health Act of 1970 states that employers must provide "a place of employment free from recognized hazards" and proposes that all walking surfaces have a minimum SCOF of 0.5. OSHA has the authority to conduct unannounced inspections, issue citations and impose penalties to ensure compliance with regulations.

**Litigation.** Litigation occurs when a building owner or operator (e.g., the school district) is faced with an injury accident lawsuit. Employees may file workers' compensation claims or lawsuits based on possible negligence. The school district may also be held liable for personal injury suits by parents of students, visitors and the general public. These lawsuits may turn into financial disasters for districts—especially if no demonstration of due diligence has been made by taking precautionary measures, including observance of and compliance with existing legislation and regulations.

### Where to Begin

To prevent slip-and-fall accidents, there are three actions that must be taken. First, identify potential problems. Walk around the school and inspect the floors for wear and hazardous conditions. Evaluate each surface for risk to students, teachers, employees and the general public. Look for water or other contaminants. Hire a building inspector or flooring expert.

Second, fix problem floors. Take OSHA, ADA and other requirements into consideration. Then decide whether to repair or replace the problem floors. Because changing school procedures can decrease risk, consider posting warning signs around the facility. Also, investigate long-term, permanent solutions, including the installation of slip-resistant sheet vinyl safety flooring (see chart).

Third, get employees involved. Employees can help identify safety hazards. Create training, education and risk awareness programs. Post signs and visual aids reminding staff to keep on the lookout for safety threats. Teach proper floor maintenance, too. Of course, use only recommended floor care products and follow all the manufacturers' instructions. Improperly maintained, even a safe floor can become unsafe.

In today's safety-conscious world, it is essential for districts to do everything possible to provide safe, slip-resistant walking surfaces. To meet total performance requirements, districts must consider several factors: floors' life expectancies, how they will help prove due diligence if an accident should occur and the cost savings to avoid litigation.

Though safety shortcuts in schools save money in the short term, they can be costly in the long run. In schools as in life, it is better to be safe than sorry. Prevention is the key. ▲

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