



Your dock's slip resistance is critical to the protection of family, friends, employees, customers and the general public, as well as against legal action. Second only to vehicular accidents, slip and falls are the next leading cause of disabling injuries and deaths, particularly among the elderly and the young.

## Outdated & Misleading Testing Methods

A vast majority - potentially all - of wood and composite decking manufacturers substantiate and market their decking materials with obsolete or misleading data when it comes to slip resistance. They do this by citing the ASTM<sup>[5]</sup> C-1028-07 testing as their standard and as evidence their products meet ADA, CTIOA<sup>[2]</sup> or OSHA requirements. Unfortunately for them, the ASTM<sup>[5]</sup> and CTIOA<sup>[2]</sup> withdrew the ASTM<sup>[5]</sup> C-1028-07 test in 2014, as it was "determined not to be a valid test for assessing pedestrian safety". The results were based on the SCOF<sup>[6]</sup> or slip resistance "while standing still," which has been determined not to be a valid indicator for pedestrian safety. Additionally, most all other ASTM<sup>[5]</sup> slip resistance tests used by these manufacturers are specific to indoor environments.

## The DCOF<sup>[1]</sup> - CTIOA<sup>[2]</sup> Pendulum Test

### The most widely accepted slip resistance test for pedestrian safety in the world

As you may know, most slip injuries do not occur while standing motionless. That's why we only utilize ANSI<sup>[4]</sup> - A1371 (Acu Test) and the DCOF<sup>[1]</sup> - CTIOA<sup>[2]</sup> pendulum tests for our products. They measure slip resistance when a person is in motion (walking/running/rotating) and require much higher "passing" values. We commissioned one of the foremost, independent, testing firms globally to complete DCOF<sup>[1]</sup> slip resistance testing on the most popular composite decking materials, treated wood (raw & painted/stained), and our Ergodock systems.

The results are not on a linear scale; a score of 40 does not indicate a surface is twice as slip resistant as another that received a score of 20. The CTIOA<sup>[2]</sup> recommends a minimum pendulum test value of **36** for both dry and wet surfaces. In most cases, an increase of 0.10 reduces the risk of slipping by factor of 4,319.

The BRE<sup>[3]</sup> developed a semilogarithmic scale, which determines the probability, or risk, of a person slipping while in motion. Very similar results were established by accredited third party testing through the ANSI<sup>[4]</sup> A137.1 (Acu Test) standard.

Currently we are unaware of any composite decking or wood decking manufacturer that utilize these required tests or that publish the resulting data to the public. Why? After reviewing the test results above, the answer becomes increasingly obvious.

Pendulum Test Results		Dry	Wet
ErgoDock		71	41
Composite Decking		37	29
Treated Wood Decking - Raw		65	21
Treated Wood Decking - Painted/Stained		64	22

  

Results on BRE Scale		slip risk while in motion:
1,000,000x	more likely to slip on dry composite decking than dry Ergodock	
100,000x	more likely to slip on wet composite decking than wet Ergodock	
2,000x	more likely to slip on dry treated wood decking than dry Ergodock	
1,000,000x	more likely to slip on wet treated wood decking than wet Ergodock	

DCOF<sup>[1]</sup> - Dynamic Coefficient of Friction  
 CTIOA<sup>[2]</sup> - Ceramic Tile Institute of America  
 BRE<sup>[3]</sup> - Building Research Establishment  
 ANSI<sup>[4]</sup> - American National Standards Institute  
 ASTM<sup>[5]</sup> - American Society for Testing and Materials  
 SCOF<sup>[6]</sup> - Static Coefficient of Friction