

STC Footwear Technical Bulletin On Slip Resistance



In the last few months, many of you might have been exposed to a lot of information regarding slip coefficient. This short article will try to clarify this issue and make it meaningful to your workplace.

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Is there a CSA standard for slip resistant footwear?

No, What CSA has done as a first step is to have people agree on a test method. This is the one described in CSA Z195-09. One of the objectives is to have the end user exposed to data having the same common ground. Thus, there are no pass fail criteria.

Can I trust all the numbers presented to me:

At this time there are some companies quoting slip resistant numbers on their own footwear. Those numbers can come from two sources: Internal sources or Independent laboratory sources (Satra, Intertek are examples of independent labs). One should not be shy to ask the source of the test and ask to see test reports (see example of report attached)



What is the relationship of these measures and real life?

There are five main criteria that have an impact on slip resistance of footwear in the work place:

- 1) Type of flooring material
- 2) Type of possible contaminant
- 3) Design of tread patterns
- 4) Compound of the soling material.
- 5) Temperature in the work place.

While this CSA specified test method does address slip on wet & dry quarry tile as well as wet stainless steel, one should be careful not to consider a direct relationship between those numbers and the performance of the sole in a specific work place. Throughout the years we have seen examples of soles with similar dry coefficient of friction performing quite differently on tile floors covered with Coconut oil (used to clean floors!).

How does the coefficient of friction obtained with the CSA test method relate to cold condition slip issues?

Since all CSA test methods are run at room temperature, it should be well noted that it does not in any way shape or form address slips on ice or in cold temperatures. In most industrial cases we hear about, ice is one of the primary surfaces that cause injurious slips. STC has recently gone to a third party independent lab to have all of our soles tested to the new CSA test method and they all look quite good even though we know from years of testing and real world experience that our better grade rubber soles are in fact the most slip resisting on ice.

How can I protect my workforce against falls in icy condition?

There are many types of ice while wet smooth ice is by far the most slippery. Even the best quality rubber soling and tread design does little to offer slip resistance on wet smooth ice. In that particular condition a slip on ice traction device may be the best answer. The down side to such a device is that when they are worn on hard floors or metal they can be very slippery and also pose risks while driving.

Adequate use of de-icing and abrasive material might end up being one of the best ways to protect people in those icy conditions.

For Further information, contact Hugh Fox at: foxh@stcfootwear.com



Hugh Fox is a 25 year veteran of the safety footwear business.

He has been actively involved in the development of slip resistant footwear for both interior and exterior applications in the most demanding applications.

He is a voting member of the CSA Footwear Committee that develops standards for safety footwear in Canada.

The Shoe Technology Company is a privately own company based out of Montreal, Canada. It specializes in development, manufacturing and sourcing of advanced occupational footwear aimed at meeting end users expectation. STC is particularly active in the mining, military, fire and general safety footwear market. Take suitable precautions to avoid slips and falls.



Column by Hugh Fox, VP Marketing STC Footwear