

Evaluating Non Slip & Anti Slip Treatments for Safe Environments

Non slip or anti slip proprietary treatments generally use an acid etching technique that allows for aesthetically appealing tiles that are slippery, to be made functional and safe. The non slip or anti slip acid etching increases the surface roughness by chemically changing the structure of the tile surface. The etching agent reacts with the glaze and the silica composition of the tile, thus decomposing microscopic amounts of the silica to form valleys and ridged grooves on the surface of the tile, or etches through the glaze to the porous body of the tile. The change in microstructure by the non slip or anti slip acid etching affects the overall surface roughness and porosity of the tile, hence increasing the slip resistance.



Slip testing a sample of a non slip treatment

Non slip or anti slip acid etching treatments are regarded by many in the ceramic tile industry as the most effective technique to increase slip resistance of flooring surfaces. The effectiveness of non slip or anti slip acid etching treatments is dependent on the chemical resistance of the surface along with the porosity of the tile body, the strength of the solution, the length of time that the solution is applied and how many applications are applied.

Safe Environments evaluate non slip or anti slip acid etching treatments to Australian slip resistance test methods. It should be noted that many non slip or anti slip treatment companies use American test methods that use a pull meter. These pull meters do not meet the requirements of the Australian slip resistance standards and provide inaccurate and potentially dangerous situations. Only wet pendulum testing and dry floor friction testing used in accordance with AS/NZS 4586 or AS/NZS 4663 can check the onsite slip resistance of non slip or anti slip acid etching treatments.

Safe Environments recommend applying samples of non slip & anti slip treatments and then assessed using Australian slip resistance test methods. Any potential colour changes and the cleaning efficacy can also be evaluated so that a total cost benefit analysis can then be conducted following the Australian risk management principles of AS 4360.

Please contact Safe Environments Pty Ltd for more information on resistance testing and consulting.

Please phone 02 9624 2600 or email info@safenvironments.com.au