Your Single Source For Innovative Architectural Concrete Solutions

BOMANITE VITRAFINISH
GENERAL CHEMICAL TESTING AND ANALYSIS

Chemical Description
A solvent-free, silane-modified, lithium-silica densifier for concrete and masonry.

General Test Data

Water Resistance ASTM Method D-870	
Blistering	Pass
Loss of Adhesion	Pass
Discoloration	Pass
Solvent Resistance ASTM Method D-2795	
Gasoline Resistance	Pass
Motor Oil Resistance	Pass
Pull-off Adhesion ASTM Method D-3559	
Concrete Dry	850
Wet	635
Abrasion Resistance ASTM Method D-4060	
Weight loss (mg)	80
Wear Index	80
Flexibility ASTM Method D-522	¼"

Adhesion Testing
Fully cured samples of concrete were polished with 50-, 120-, 200-, 500- and finally 1,000-grit resin bonded diamond abrasives. Five of the samples were treated with a single application of Bomanite VitraFinish and five of the samples were left untreated. Metal tabs were then adhered to the concrete samples with a two-part epoxy (Sika). Once cured, pull-off testing was conducted with a Dillon tensile meter.

Average pull-off pressure—untreated samples: 311 pounds

Average pull-off pressure—treated samples: 412 pounds

Percentage increase/treated over untreated samples: 32%

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Friction Test Results

This series of tests were conducted by test engineer Mr. Lee Bachus according to ASTM C-1028-96 guidelines. All samples had a machine trowel finish with the Bomanite VitraFinish sample polished with diamond discs up to 1,000 grit.

Untreated specimen
Dry = 0.710
Wet = 0.480

Bomanite VitraFinish treated specimen
Dry = 0.690
Wet = 0.360

Analysis and Summary

The dynamics of friction on concrete are very complex. This testing can only be interpreted to mean that Bomanite VitraFinish does not significantly alter the friction qualities of the surface they are applied to. All standard methods for accident prevention must be used in situations where slip and fall or traction concerns exist.