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# **A Summary of Independent Testing and Case Studies Conducted on A+Resins.**

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A+Resins is a scientifically designed, proprietary and environmentally friendly, water based resins formulations that enhancers and significantly improve the characteristics of the products and building materials they are applied or added to. Based upon more than twelve years of research, development and independent laboratory testing, A+Resins' formulations have been proven to increase strength, and durability in a wide variety of commercial and residential building materials. In many instances, the enhancements provided by A+Resins also extend the use of the building materials beyond their traditional applications. All of the test results and applications to date indicate that A+Resins is non-toxic, biodegradable with no fumes or vapors with an "A" fire spread rating, while having an increased adhesiveness, pencil hardness and psi. A+Resins is anti-corrosive, fungi and water proof, is suitable to be brushed, rolled or sprayed on any substrate and requires no special tools or clothing with simple cleaning of tools and work area with plain water.



## **A-001 Determine the effects on the addition of A+ Resins to exterior paint: (June 2011)**

*Marschall Laboratories, Inc. Clearwater, Florida*

### **TEST DESCRIPTION:**

A+Resins added to Behr 5050 Premium Plus Exterior Paint and tested for viscosity, reflection, gloss, flow and leveling, scrubbing resistance, stain removal pencil hardness; all standard ASTM recognized tests. The paint sample with A+Resins was compared to a control without the A+Resins additive.

### **TEST RESULTS SUMMARY:**

The tests results were significant in many areas such as: the paint with A+Resins increased in viscosity after 15 minutes. The flow and leveling rating decreased. Gloss values decreased slightly. No significant difference were noted in block resistance and burnishing resistance. There was a slight improvement in stain removal properties. The film was slightly harder as evidenced by the pencil hardness test. Adhesion improved with use on aluminum, galvanized and cold steel.



## **A-002 Determine the effects of A+Resins on commercial stucco, Quikrete cement and sand as well as Quikrete stucco: (July 2011)**

*Universal Engineering Sciences, Inc. Orlando, Florida*

### **TEST DESCRIPTION:**

Standard ASTM tests C-39/780 and others were conducted over a 28 day test period with tests performed at day 7 and day 28.

### **TEST RESULTS SUMMARY:**

Tested against a control of 1,800 psi, with the additive A+Resins, the psi increased to 6,310. ( cement./ sand: 6,310) (stucco base mix: 2,750) (stucco finish mix: 1,790) and (concrete mix: 4,160) (Mortar/ stucco cement mix: 2,220)



## **A-003 Determine the effects of A+Resins on mildew resistance when added to epoxy coating: (June 2012)**

*TheTroy Corporation, Newark, New Jersey*

### **TEST DESCRIPTION:**

The Troy Corporation, a microbiology laboratory conducted tests on A+Resins in a clear coat application to a wooden substrate in accordance with Troy Mildew Resistance Test 1.6.B , a version of ASTM D5590-00. The test organisms used were Aspergillus niger (ATCC #62750), Aureobasidium pullulans (ATCC #9348) and Penicillium funiculosum (ATCC #11797). A sample was exposed for 24

hours while other samples were exposed for 48 hours in controlled temperatures. Some samples were placed in petri dishes containing the various fungal organisms and incubated for 3 weeks at 28 degrees C.

**TEST RESULTS SUMMARY:**

The results of the tests after the 3 week period of exposure to the various fungal organisms indicate that the epoxy A+Resins had complete resistance to the growth of Algae as well as some resistance to mildew depending on the strain. The A+Resins contain no nutrients for fungal organisms to live on.



### **A-004 Determine fire resistance of standard industry wall board when treated with A+Resins: (April 2012)**

*Guardian Fire Testing Laboratories, Inc. Tonawanda, New York*

**TEST DESCRIPTION:**

Fire test performed on clear coat epoxy A+Resins applied to a 1/2" thick regular wallboard and also applied to a 1/4" cement board. The test used a gas torch, light flames, flickering flames, no flames, intermittent flames, light charring and scorching at torch areas, as well as light/heavy smoke areas with observations in minutes and seconds.

**TEST RESULTS SUMMARY:**

A+Resins received an "A" 20 minute flame spread rating as a result of the intensive torch testing. In addition there was no flame advance after the torch was extinguished indicating self extinguishing.



### **A-005 Anti-corrosive and psi testing: (October 2014)**

*Wright Cement & Construction Corporation, Pikeville, Kentucky*

**TEST DESCRIPTION:**

A 56 day Rapid Chloride Permeability Test to determine the resistance of A+Resins to corrosion in cement mix. In addition psi testing after a 28 day period. Standard testing procedures were applied during the time frame using copper wire, electrical impulses, etc..

**TEST RESULTS SUMMARY:**

Results indicated with the control group at 985, (874) and A+Resins recording 519 (486). Extremely positive results indicating a strong and superior resistance to corrosion of re bar's used in cement structures. In addition the psi increased from an initial reading after only 24 hours curing time of 2066 to 8989 after 28 days.



### **A-006 Marine Vessel Hull Testing in the Atlantic Ocean: (2011)**

*Resins Enhancements LLC*

**TEST DESCRIPTION:**

A+ Resins was applied in clear coat form to one side of a 4x4 inch piece of plywood and secured in the Atlantic Ocean at a Marine Dock submerged in four feet of water for a period of three months.

**TEST RESULTS SUMMARY:**

The side not protected (coated) with A+Resins was totally engulfed with all forms of marine life. The side coated with A+Resins was clean with no forms of marine life adhered to it indicating that there are no nutrients in A+Resins on which any form of marine life or fungal bacteria can live.



### **A-007 Demonstration Wall:**

**TEST SITE DESCRIPTION:**

In June 2013 a demonstration cement block wall was constructed by Titan America in Orlando Florida and then coated with stucco using A+Resins. The stucco was applied in inclement weather, drizzling rain, under circumstances the applicators would not normally work. The applicators were amazed at the ease of mixing and application of the stucco under the weather conditions. In addition following

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curing after 28 days the wall was painted by Disney Artisans with 1/2 of the wall painted mixed A+Resins in the paint used.

**TEST RESULTS SUMMARY:**

After 10 weeks of unprotected exposure to ever changing weather conditions, the test stucco panels showed absolutely no evidence of efflorescence and were extremely hard even on the unfinished scratch coat. When the finished surface was hit with a tack hammer, it did not dent or crack. When water was applied to the surface, it rolled off leaving the wall dry. The Titan supervisor stated that: "These are unequivocally the best results for stucco, both for water-tightness and hardness, I have seen in my thirty years of experience."

The artisan painted half the wall after first rinsing it off with acid and plain water. After painting the surface, sealed the paint with a clear coat sealer. The other half of the wall was painted with A+Resins added to the paint. No preparation of the wall with acid, etc. was necessary. The paint was applied directly to the stucco surface. The finished painted area did not need to be sealed with a clear coat sealer. The following day the surfaces were compared. The A+Resins half was clear, with brilliant colors and with a smooth surface. The acid prepared and sealed coat half was not as brilliant or as smooth in a comparison of the two sides.

The savings in man hours and materials is significant as a result of using A+Resins.

*A+ Resins are 100% green, water-based and nontoxic  
with no residue during or after application.*

**FOR QUESTIONS OR COMMENTS CALL  
TOLL FREE 1-844-446-7312**

**GREEN BUILDING**  
TECHNOLOGIES CO.

5233 Hammock Circle, Saint Cloud, Florida 34771 USA

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