

| Acrovyn by Design® Chemical Resistance Testing



March 31, 2014

Mr. Tom Gay
 Construction Specialties, Inc.
 347 Broad Street
 Hughesville, Pennsylvania 17737

RE: CHEMICAL RESISTANCE - TEST SUMMARY

Dear Mr. Gay:

Architectural Testing, Inc. was contracted by Construction Specialties, Inc. to conduct chemical resistance testing of their standard reverse print Acrovyn by Design product in accordance with ASTM D 543, *Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents*. The project resulted in the following observations.

Changes After 1-Week Exposure at Room Temperature

Chemical	Observation	Chemical	Observation
Acetic Acid 5%	No Change	Nitric Acid	Dulling, curling, softening/swelling, delamination
Acetone	Dulling, curling, softening/swelling, delamination	Sodium Carbonate, 20%	Delamination
Ammonium Hydroxide, 10%	Delamination	Sodium Chloride, 10%	No Change
Citric Acid, 1%	No Change	Sodium Hydroxide, 10%	Delamination
Carbon Tetrachloride	Dulling, Delamination	Sulfuric Acid, 30%	Curling, softening/swelling, delamination
Ethyl Acetate	Dulling, curling, softening/swelling, delamination	Aviation Gas Grade, 100LL	No Change
Ethyl Alcohol, 95%	Delamination	Clorox	Dulling, Delamination
Hydrochloric Acid, 10%	Delamination	Denatured Alcohol	Delamination
Hydrofluoric Acid, 40%	Delamination	Bravo Cleaner	Dulling, Delamination
Hydrogen Peroxide, 3%	Delamination		

Full details of these tests are available in report D3578.01-106-31. If you have any questions regarding this test summary, please feel free to contact me at your convenience.

For ARCHITECTURAL TESTING, INC.:



Digitally Signed by: Todd D. Burroughs

Todd D. Burroughs
 Senior Project Engineer
 Components / Materials Testing

TDB:tdb/jas