

# TESTING REPORT

DATE: 2 December 1997

TYPE OF TEST: BARRIER APPLICATION AND GRAFFITI REMOVAL

TEST SAMPLES: DRYVIT® SAMPLES PREPARED BY DAW CONSTRUCTION  
COATED WITH AMERICAN POLYMER GSS-10™ SYSTEM

## TEST PROCEDURE:

1. Test samples of approximately 24 x 24 inches were prepared according to the normal methods of applying Dryvit by a technician experienced in Dryvit application. Four different samples of several different Dryvit colors and treatments were prepared. These are described in the test results, below.
2. The Dryvit panels were allowed to dry for a minimum of 48 hours.
3. The Dryvit samples were coated with various treatments of American Polymer GSS-10 anti-graffiti system. The coating of the Dryvit samples was done so that the effect of several base-coat treatments (described in the test results) could be studied. The installation of these coatings was done by a technician experienced in the GSS-10 system. Sufficient time was allowed between coats to ensure that each coat was properly dried before the next coat was applied.
4. The coated Dryvit samples were marked with three types of graffiti — Magic Marker in black, Magic Marker in red, and permanent ink marker.
5. A removal of the graffiti was done using Erasol (supplied by American Polymer) by spraying Erasol onto the graffiti, brushing to work the Erasol onto the surface, rinsing with Erasol and, if needed, again brushing, and then finally rinsing with water.
6. Each sample was inspected for graffiti removal and changes in the Dryvit finish.
7. Each sample was then cut into sections to investigate whether any damage had been sustained by the polystyrene insulation under the Dryvit finish.

## TEST RESULTS:

Dryvit Finish/Color	Base Coat	Top Coat	Graffiti Removal	Dryvit System Damage*
Quartz Putz/ Baked Clay	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None	70% complete	Significant removal of the color, some attack of the underlying foam

Dryvit Finish/Color	Base Coat	Top Coat	Graffiti Removal	Dryvit System Damage*
Ameristone, no seal clear	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None	95% complete	Darkened surface
Sand Blast/ Aloha 698, Demandit	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None	100% complete	Color removal
Sand Blast/ Pod Blue 699	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None	90% complete	Color shade change
Sand Pebbles/ Pearl Ash 106	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None		
Quartz Tone/ Licorice 715	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None	100% complete	Color faded


Dryvit Finish	Base Coat	Top Coat	Graffiti Removal	Dryvit System Damage*
Primus (without additional Dryvit finish)	Safe Guard, 1 coat	GSS-10, 2 coats	100% complete	None
	Safe Guard, 2 coats	GSS-10, 2 coats	100% complete	None
	Sure Fire, 1 coat	GSS-10, 2 coats	100% complete	None
	Sure Fire, 2 coats	GSS-10, 2 coats	100% complete	None
	None	GSS-10, 2 coats	100% complete	None
	None	None	90% complete	Some damage to foam undercoat, color change

\* Some damage was noted to the samples when the cut or unprotected edges of the foam were subjected to the Erasol removal solution. This was viewed as incidental to the test and not significant since in any real installation would be working with large areas and protected edges.

#### COMMENTS:

1. The Dryvit system was not compromised or adversely affected by the application of the American Polymer system. This was noted at all levels of base-coat application (1, 2, and no coats) with both base-coats tested — Safe Guard and Sure Fire — which differ in the nature of the incorporated polymer system.
2. When the Dryvit system was completely unprotected, that is, when no graffiti removal system (base-coat or top-coat) was applied, the Erasol material discolored the Dryvit finish coat and occasionally caused some damage to the underlying foam. This was true even when Demandit was applied to the Dryvit finish.
3. The graffiti removal was 100% complete whenever the American Polymer system was applied. When no graffiti barrier was present, removal was usually not 100% complete.
4. Adhesion between the American Polymer graffiti barrier system and the Dryvit finish was good. No separation was detected between the surfaces, even after graffiti removal.
5. The integrity of the Dryvit system is enhanced by the application of the graffiti protection system as was noted by the damage experienced by the foam when the system was not present.

#### CERTIFICATION:

  
 A. Brent Strong, PhD  
 Professor of Manufacturing Engineering  
 Brigham Young University  
 435 CTB  
 Provo, UT 84602