

## Composites

### FRP PANEL “TORTURE” TEST

#### GLASBORD® WALL PANELS WITH SURFASEAL® FINISH

It's a dirty world out there. Protect your facility with Crane resilient wall coverings. Our Glasbord with Surfaseal has been the industry standard for FRP wall & ceiling panels for over 60 years.

**SURFASEAL CREATES SURFACES THAT DELIVER UNSURPASSED HYGIENE AND DURABILITY.** The Surfaseal film finish, found only on Glasbord, provides a barrier

that's highly resistant to impact and scratching. Because of its unique process, the Surfaseal finish will not trap soil or bacteria on the panel.

The surface is up to 10 times easier to clean and up to six times more stain resistant than other sanitary wall systems. Glasbord with Surfaseal panels protect your walls and keep them looking clean.



#### CLEANABILITY TEST

When Glasbord with Surfaseal and an ordinary FRP panel are heavily soiled, the Glasbord panel exhibits up to 10 times more cleanability per MacBeth Computer Colorimeter.

#### STAIN RESISTANCE TEST

Prolonged direct contact to concentrated ammonia-based cleaner exhibited no color change per MacBeth Computer Colorimeter.

#### TEST PROCEDURE

##### PURPOSE

To visually compare the cleanability and resistance to surface abrasion of commercial grade FRP panels.

##### EQUIPMENT

Video Imaging Microscope - Navitar Micromate  
Red Penetrating Dye or Permanent Black Marker  
FRP Cleaner

5" x 1" Stiff Wire Brush  
Lint Free Rag

##### SAMPLE PREPARATION

- Cut samples to 5" x 8"
- Clean samples of markings or dirt

##### PROCEDURE

1. ABRABE PANELS
  - Using the wire brush, vigorously abrade the samples applying strong, even pressure.
  - Abrade each sample with 10 cycles. One cycle consists of a forward and backward motion over the entire length of the panel.
2. STAINING SAMPLES
  - Using either a permanent black marker or red penetrating dye, apply even coverage to the entire length of the abraded area.
3. CLEAN THE PANELS
  - Spray the FRP cleaner directly onto the panel surface and begin wiping off the stain with the lint free rag.
  - Change the cleaning rag often to assure that the stain is being wiped off and not smeared on the panel.
  - To effectively remove the stain, the sample may require additional spraying of FRP cleaner on the panel surface

##### EVALUATION + REPORTING RESULTS

- Evaluate samples with Video Imaging Microscope.
- Observe the abraded areas for actual surface damage.
- Compare the amount of stain that remained on the surface of various panels after being cleaned.

# FRP PANEL "TORTURE" TEST

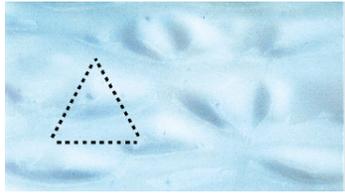
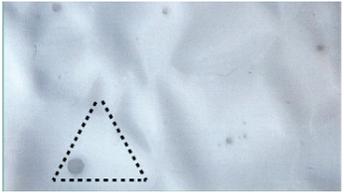
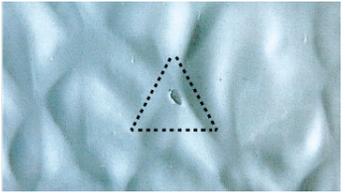
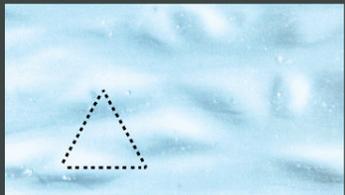
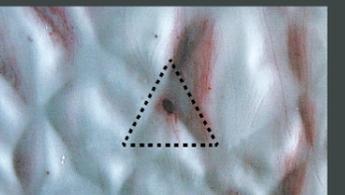
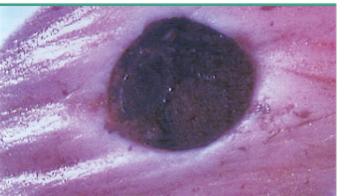
## CONCLUSION

Inspection of the samples before abrasion shows open surface porosity on samples A, B, C, & D. Inspection of the samples after cleaning shows scratches on the surface of A, B, C, & D and additional open surface porosity. Penetrating dye has been absorbed by the scratches and surface porosity and was not removed by cleaning.

The Surfaseal finish on the Glasbord sample has sealed the surface and protected the panel during abrasion. No penetrating dye was absorbed by the panel.

"Competitive samples photographed in this test were received from customer inventories. These microphotographs represent the observed differences and apply only to the sample universe studied. Samples or products from magnified areas were chosen by Crane Composites lab technicians as representative of the entire surface."

## LABORATORY RESULTS

	GLASBORD	COMPETITIVE FRP PANELS	
<b>BEFORE STAINING</b> 25x magnification			
<b>AFTER STAINING</b> 25x magnification			
<b>AFTER STAINING</b> 93x magnification			

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