

March 10, 2003

U.S. ARCHITECTURAL PRODUCTS, INC.
LINCOLN, RHODE ISLAND

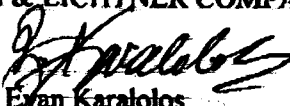
PULL-OUT TESTS OF SELF DRILLING SCREWS ON CEM-STEEL PANELS

- Test Number -- CC 582
- Date Received -- 3-5-03 Date Tested - 3-7-03
- Source -- Submitted by your Mr. Michael J. Kavanaugh
- Samples --
 - Three 12" x 12" x 17 mm Cem-Steel panels
 - Several of each size screws identified as follows:
 - #8 x 1-1/2" self drilling screws
 - #10 x 1-1/2" self drilling screws
 - #12 x 1-1/2" self drilling screws
- Test Procedure -- Five screws of each size were drilled into the cement side of the panel through the panel and sheet metal panel, using an electric drill. The screws were drilled allowing the head of the screw to remain approximately 3/16" above the cement panel to permit gripping of the screw for the pull-out test using our calibrated testing machine.
- Results -- The following data have been obtained:

PULL-OUT VALUES, LBF

SCREW SIZE	<u>#8 x 1-1/2"</u>	<u>#10 x 1-1/2"</u>	<u>#12 x 1-1/2"</u>
	410	464	410
	472	550	574
	415	470	546
	382	492	519
	<u>465</u>	<u>548</u>	<u>547</u>
AVERAGE	429	505	519

THE THOMPSON & LICHTNER COMPANY, INC.


Evan Karalolos
Laboratory Director