



Briem Engineering

MATERIAL TESTING & ENGINEERING

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Report No: 1106-867

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Arcoplast
Wall and Ceiling Systems
1873 Williamstown Drive
St. Peters, MO 63376
Ghislain Beauregard

TEST CERTIFICATE

Determination of Pull-Out Strengths for various fasteners secured in Arcoplast Wall and Ceiling Systems panels.

TEST PROCEDURE

Several types and sizes of screw fasteners were secured in 4" x 6" panels of Arcoplast Wall and Ceiling Systems and subjected to straight-line pull tests. An Instron Testing Machine was utilized to pull the fasteners from the panels. The test assembly is shown in the enclosed photographs.

TEST RESULTS

Screw Pull-Out Strength, lbs.

Fastener ID	Pilot Hole	6 mm OD High Density	9.5 mm OD High Density	9.5 mm OD LW
No.6 x 1-5/8" Self Drilling Drywall Phillips	None	228	310	176
		216	268	165
		217	265	-
		220 avg.	281 avg.	171 avg.

No.12 x 1-1/2" Flat Phillips Zinc	5/32"	237	372	301
		220	318	304
		230	346	-
		229 avg.	345 avg.	303 avg.

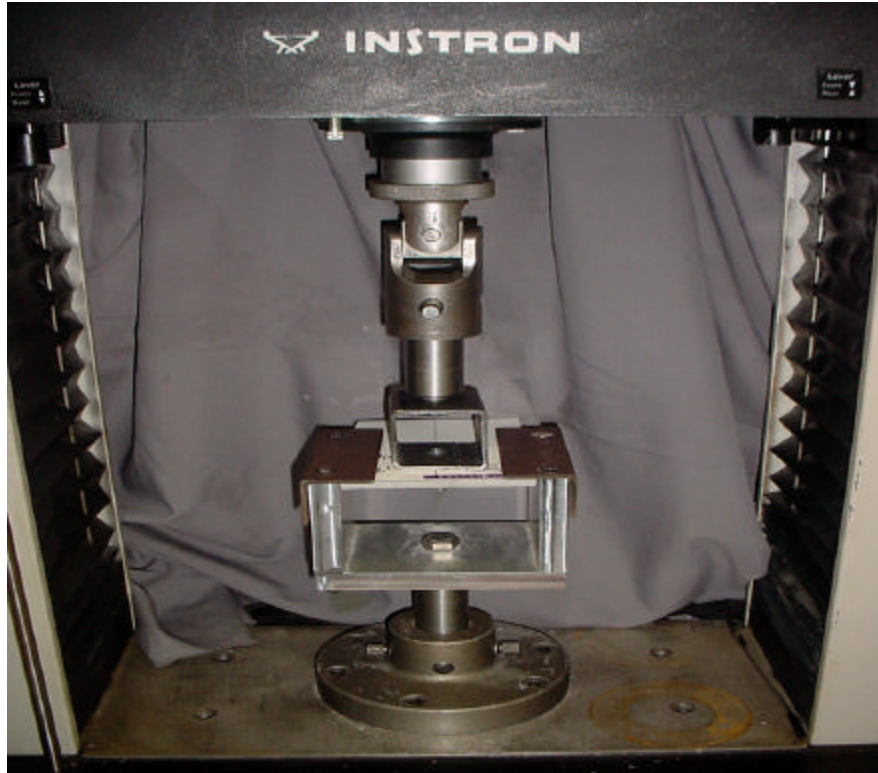
No.10 x 1-1/2" Flat Phillips Zinc	9/64"	246	262	222
		262	280	208
		267	270	-
		258 avg.	271 avg.	215 avg.

Fastener ID	Pilot Hole	6 mm OD High Density	9.5 mm OD High Density	9.5 mm OD LW
1-5/8" Coarse Thread Drywall Screw	7/64"	250	279	285
		221	283	266
		225	230	-
		232 avg.	264 avg.	276 avg.

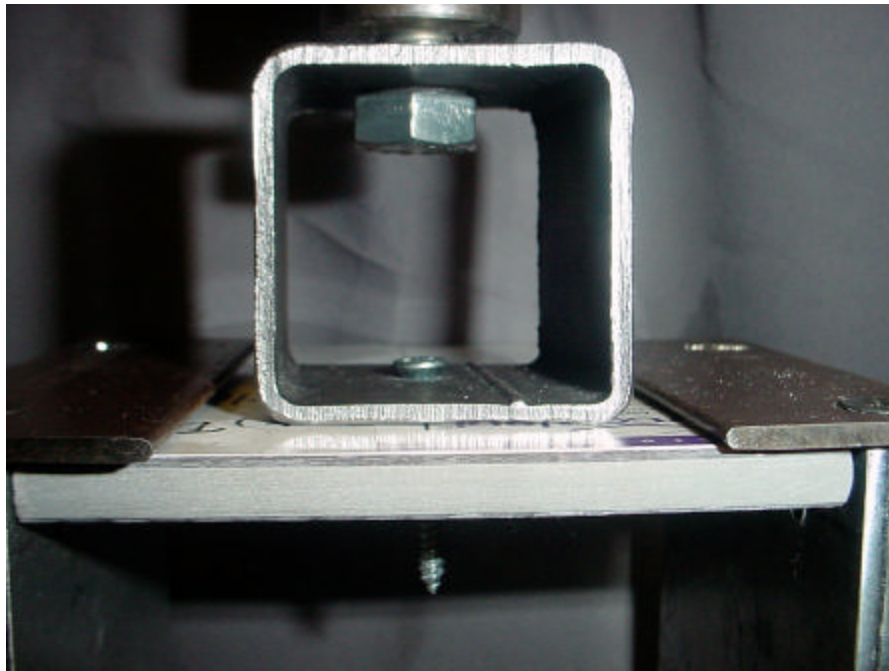
1-5/8" Fine Thread Drywall Screw	7/64"	236	255	163
		250	243	167
		213	300	166
		233 avg.	266 avg.	165 avg.

No.8 x 1-1/2" Oval Phillips Zinc	1/8"	233	296	206
		236	336	200
		222	313	-
		230 avg.	315 avg.	203 avg.

Fab-Lock Fastener P/N FAC-10-8	5/16"	787	-	495
		670	-	512
		945	-	545
		801 avg.	-	517 avg.



Photograph 1
View of the test assembly used in the Instron to obtain fastener pull-out strength values.



Photograph 2
Close up view of the test fixture used to support the 4" x 6" Arcoplast test panels for the screw pull-out tests.



Photograph 3

Fab-Lok fastener pulled from a 9.5mm light weight Arcoplast panel.



Photograph 4

Condition of the 9.5mm Light Weight panel after a 512 pound tensile load was applied to the Fab-Lok fastener shown in photograph number 3.



Photographs 5

View of a 6mm High-Density Arcoplast panel after a Fab-Lok pull test that required a tensile load of 787 pounds to produce failure.

A handwritten signature in blue ink, appearing to read "Patrick Lombard".

Patrick Lombard
Laboratory Manager