



**FACULTY OF ENGINEERING
CHULALONGKORN UNIVERSITY**

Type of test Bonding Strength (ASTM C952-02)

Test specimen Five (5) specimens in cube shape were cast in the laboratory.
The mix proportion of water to “weber.set lightweight block” ratio was 30% by weight.

Client Saint-Gobain Weber Co., Ltd.

Date of Test July 24, 2013


Test of method After mixing them thoroughly, the specimens were cast in between 2 AAC block having a size of 100x100x100 mm. The specimens are cured in the room temperature until conducting the test.

Test Results The bonding strength of specimens at the age of 28 days are shown as follows.

Specimen No.	Width of Sample W (cm)	Length of Sample L (cm)	Thickness of Sample H (cm)	Maximum Load P (kgf)	Bonding Strength P/(WL) (kgf/cm ²)	Remarks
1	10.0	10.0	10.0	270	2.70	Failure at AAC block
2	10.0	10.0	10.0	255	2.55	Failure at AAC block
3	10.0	10.0	10.0	235	2.35	Failure at AAC block
4	10.0	10.0	10.0	280	2.80	Failure at AAC block
5	10.0	10.0	10.0	290	2.90	Failure at AAC block
				Average	2.66	

The bonding strength of “weber.set lightweight block” is higher than lightweight blocks as shown figures due to all failures are occurred at ACC block layers.

Note: These results certify the adequacy and representative character of test sample only.



 (Assoc. Prof. Dr. Tirawat Boonyatee)

Tested by : 

 (Assist. Prof. Dr. Boonchai Sangpetngam)

On Behalf of Head of Civil Engineering Department



FACULTY OF ENGINEERING
CHULALONGKORN UNIVERSITY
SETTING TIME OF HYDRAULIC CEMENT MORTAR BY MODIFIED VICAT NEEDLE
(ASTM C807-05)

Specimen from : Saint-Gobain Weber Co., Ltd.

Date : July 24, 2013

Test specimen: A specimen is mixed and tested in the laboratory with room temperature.

Calibrated by :

The mix proportion of water to "weber.set lightweight block" ratio was 30% by weight.

(Assist. Prof. Dr. Boonchai Sangpetngam)

Test results :

(The test results are good only for those specimens tested.)

Elapsed time (min)	Penetration in 30 sec (mm)
30	40
45	40
60	40
75	40
90	40
105	40
120	40
135	40
150	40
165	40
180	40
195	40
210	40
225	40
240	40
255	40
270	40
285	40
300	40
315	40
330	40
345	40
360	40
375	40
390	40
405	40
420	40
435	40
450	40
465	40
480	40
495	40
510	40
525	40
540	40
555	40
570	40
585	40
600	37
615	33
630	33
645	33
660	33
675	33
690	33
705	33
720	27
735	25
750	9
765	2
780	-
Initial setting time (min) at 10 mm	750

(Assoc. Prof. Dr. Tirawat Boonyatec)

On Behalf of
Head of Civil Engineering Department



**FACULTY OF ENGINEERING
CHULALONGKORN UNIVERSITY**

Type of test Thin-Bed Mortar Of Autoclaved Areated Concrete (AAC) Masonry (ASTM C1660-09)


Test specimen Five (5) specimens in cube shape were cast in the laboratory.
The mix proportion of water to “weber.set lightweight block” ratio was 30% by weight.

Client Saint-Gobain Weber Co., Ltd.

Date of Test July 24, 2013

Specimen No.	Width of sample (cm)	Thickness of sample (cm)	Thickness of mortared joint (mm)	Maximum load (kgf)	Splitting tensile strength (MPa)	AAC strength class
1	10.0	10.0	4.0	370	0.23	AAC 2
2	10.0	10.0	3.3	440	0.27	AAC 2
3	10.0	10.0	2.9	390	0.24	AAC 2
4	10.0	10.0	2.3	580	0.36	AAC 2
5	10.0	10.0	2.9	450	0.28	AAC 2
				Average	0.28	

Note: ASTM C1660-09 specifies the minimum Splitting Tensile Strength of the Specimen for AAC strength class AAC2 is 0.28 MPa.



 (Assoc. Prof. Dr. Tirawat Boonyatee)

Tested by : 

 (Assist. Prof. Dr. Boonchai Sangpetngam)

On Behalf of Head of Civil Engineering Department



**FACULTY OF ENGINEERING
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Type of test Compressive Strength (ASTM C109)

Test specimen Five (5) specimens in cube shape were cast in the laboratory.
The mix proportion of water to “weber.set lightweight block” ratio was 30% by weight.

Client Saint-Gobain Weber Co., Ltd.


Date of Test July 24, 2013

Test of method After mixing them thoroughly, the specimens were cast to the standard molds having a size of 50x50x50 mm. The specimens are cured for 24 hours in molds, then, stripped and cured in the room temperature until conducting the test.

Test Results The compressive strength of specimens at the age of 28 days are shown as follows.

Specimen No.	Width of Sample W (cm)	Length of Sample L (cm)	Thickness of Sample H (cm)	Maximum Load P (kgf)	Compressive Strength P/(WL) (kgf/cm ²)	Remarks (specimen weight in gram, g)
1	5.03	5.01	5.03	970	38.49	223.4
2	5.01	5.07	5.03	1,150	45.27	225.6
3	5.02	5.03	5.03	1,060	41.98	223.8
4	5.02	5.13	5.03	1,200	46.60	226.0
5	5.01	5.05	5.02	1,160	45.85	222.4
				Average	43.64	

Note: These results certify the adequacy and representative character of test sample only.



 (Assoc. Prof. Dr. Tirawat Boonyatee)

Tested by : 

 (Assist. Prof. Dr. Boonchai Sangpetngam)

On Behalf of Head of Civil Engineering Department



CIVIL ENGINEERING LABORATORY

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ASTM C231 : Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method

SPECIMEN FROM : บริษัท แชน-โกแบ็ง เวเบอร์ จำกัด
PROJECT NAME : ปูนก่อ "เวเบอร์.เซ็ท ก่อมวลเบา"
DATE OF CASTING : 01 August 2013
DATE OF TESTING : 01 August 2013

Sample	% Air Content
MIX 1	15.5 %
MIX 2	15.5 %
MIX 3	15.5 %
Average	15.5 %

REMARKS : Water Air Content = 0.2 %

Tested by :

(Krissakorn Krairan)

Checked by :

(Manote Sappakittipakorn)

Department Head :

Department of
CIVIL ENGINEERING
(Kevin Tantisevi)

Remarks

1. The testing results are good only for those specimens tested.
2. Not valid unless signed and sealed.