Laboratory Test

of

Weber.smoothing

For

Saint – Gobain Weber Company Limited

Material Testing Laboratory

Department of Civil Engineering

Faculty of Engineering

Chulalongkorn University

Tested by:.....PITCHA J.....

(Dr. Pitcha Jongvivatsakul)

.....

(Prof. Dr. Teerapong Senjuntichai)

Head of Civil Engineering Department

Test Product

Weber.smoothing

Mix Proportion

Water-Cement ratio = 0.24

Test Standards

Type of Test	Test Standard
Compressive Strength of Hydraulic Cement Mortars	ASTM C109
Time of Setting of Hydraulic Cement Mortar by Modified Vicat Needle	ASTM C807
Flexural Strength of Hydraulic Cement Mortars	ASTM C348
Compressive Strength of Hydraulic Cement Mortars	EN 196-1

Type of test: Compressive Strength of Hydraulic Cement Mortars

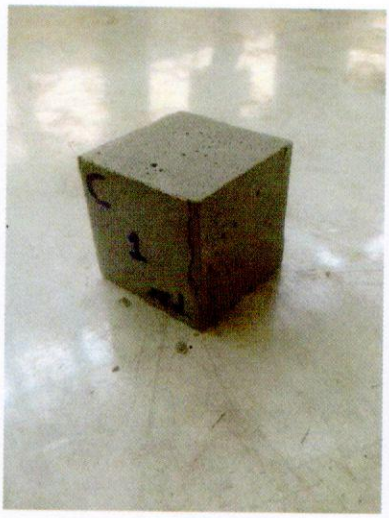
Specimens from: Saint – Gobain Weber Company Limited

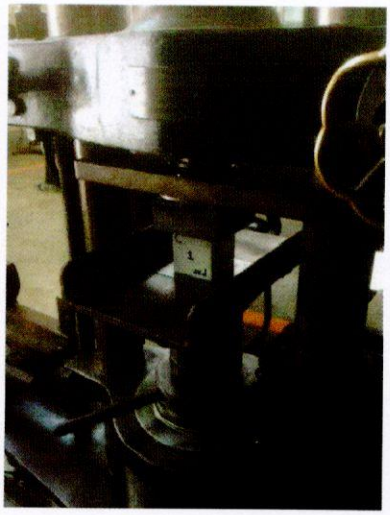
Test product: Weber.smoothing

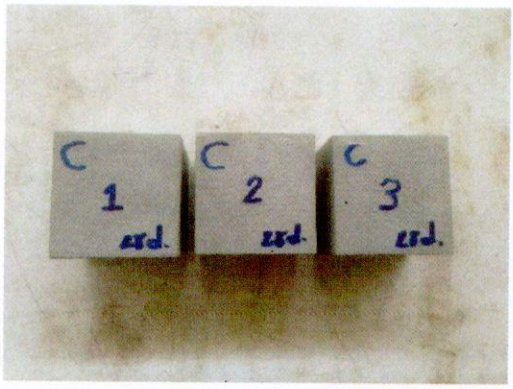
Mix proportion: W/C = 0.24

Specimen description: 50 mm cubes of Cementations Mortar

Figure of testing:

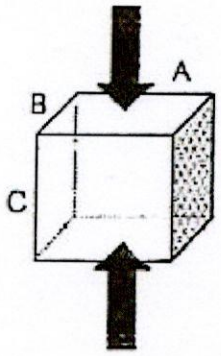






Test results:

Dimension (mm)			Weight (g)	Date		Age (days)	Maximum Crushing Load (kg)	Maximum Crushing Strength (ksc)
A	B	C		Cast	Tested			
50.1	50.9	49.8	201.8	15/06/59	12/07/59	28	3900	152.9
50.0	50.5	49.9	201.4	15/06/59	12/07/59	28	3600	142.6
49.9	50.6	49.9	201.8	15/06/59	12/07/59	28	3900	154.4
						Average	3800	149.9



Date: July 12, 2016

Test by: PITCHA J. .....

(Dr. Pitcha Jongvivatsakul)

Type of test: Time of Setting of Hydraulic Cement Mortar by Modified Vicat Needle

Specimens from: Saint – Gobain Weber Company Limited

Test product: Weber.smoothing

Mix proportion: W/C = 0.24

Test procedure: A mortar is prepared following mix proportion from the manufacture. Mortar is then tested for time of setting, using the needle of the modified Vicat apparatus for the determination of a stipulated penetration. The time required to obtain the stipulated penetration of the modified Vicat needle is the time of setting.

Figure of testing:

Test results:

Time of Measurement	Elapsed Time (min)	Penetration (mm)
11:15	0 (Mixing)	40
11:45	30	40
12:15	60	40
12:45	90	40
13:15	120	40
13:45	150	40
14:15	180	40
14:45	210	40
15:15	240	40
15:45	270	38
15:55	280	36
16:05	290	36
16:15	300	36
16:25	310	31
16:35	320	26
16:45	330	21
16:55	340	8
17:05	350	3
17:15	360	2
17:25	370	2
17:35	380	2
17:45	390	1
17:55	400	1
18:05	410	1
18:15	420	1
18:25	430	1
18:35	440	0
18:45	450	0
18:55	460	0
19:05	470	0
Initial Setting Time (min)		322
Final Setting Time (min)		440

Date: July 12, 2016

Test by: PITCHA J.

(Dr. Pitcha Jongvivatsakul)

Type of test: Flexural Strength of Hydraulic Cement mortars

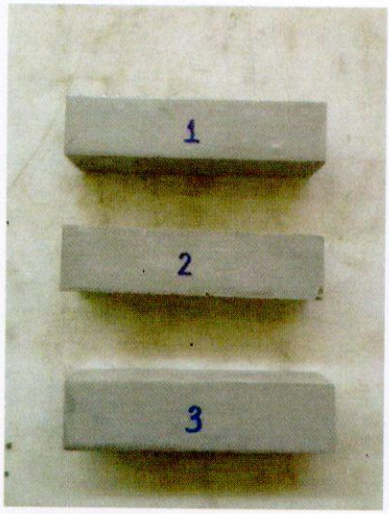
Specimens from: Saint – Gobain Weber Company Limited

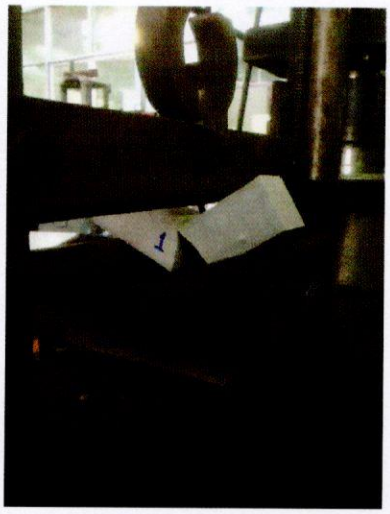
Test product: Weber.smoothing

Mix proportion: W/C = 0.24

Specimen description: Test prisms are 40 by 40 by 160-mm.

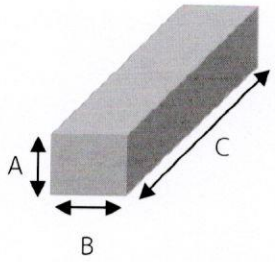
Figure of testing:





Test results:

Dimension (mm)			Weight (g)	Date		Age (days)	Maximum Load (kg)	Maximum Flxural Strength (ksc)
A	B	C		Cast	Tested			
40.4	40.0	160.11	409.6	15/06/59	12/07/59	28	180	50.4
40.4	40.2	160.15	417.6	15/06/59	12/07/59	28	180	50.4
40.7	40.4	160.10	412.0	15/06/59	12/07/59	28	180	50.4
						Average	180	50.4



Date: July 12, 2016

Test by: .....PITCHA J.....

(Dr. Pitcha Jongvivatsakul)

Type of test: Compressive Strength of Hydraulic Cement Mortars

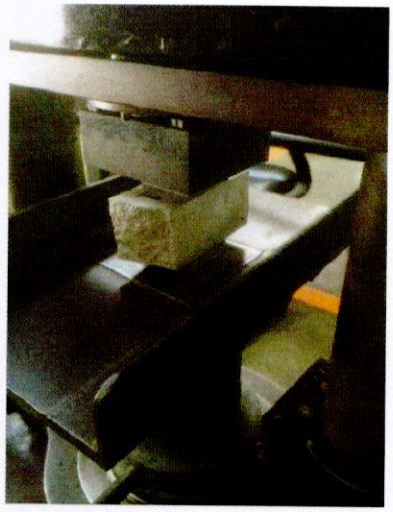
Specimens from: Saint – Gobain Weber Company Limited

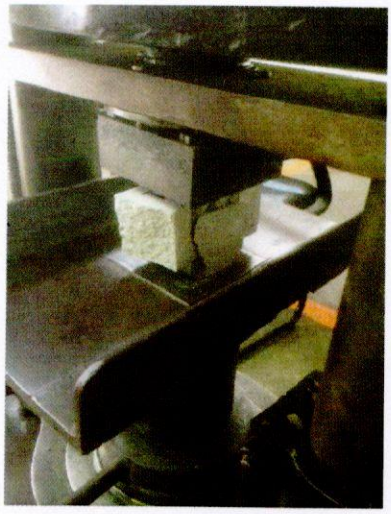
Test product: Weber.smoothing

Mix proportion: W/C = 0.24

Test procedure: The prism halves (after test of flexural strength) are tested in compression. Centre the prism halves laterally to the auxiliary platens of hard steel, which exactly determine the compressive area (because the prism halves have an irregular form). According EN 196-1, the size of the platens is 40 mm x 40 mm and they are at least 10 mm thick. Increase the load smoothly at the rate of 2400 ± 200 N/s over the entire load application until fracture.

Picture of testing:

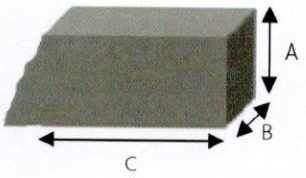


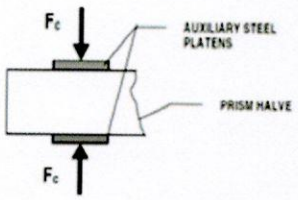


Test results:

No	Dimension (mm)			Date		Age (days)	Maximum Crushing Load (kg)	Maximum Crushing Strength (ksc)	Remark
	A	B	C	Cast	Tested				
1	40.4	40.0	80	15/06/59	12/07/59	28	140	8.75	
	40.4	40.0	75			28	150	9.37	
2	40.3	40.1	80	15/06/59	12/07/59	28	170	10.62	Variation > 10 %
	40.3	40.1	75			28	140	8.75	
3	40.4	40.2	80	15/06/59	12/07/59	28	160	10.0	
	40.7	40.4	65			28	150	9.37	
						Average	148	9.29	Average of 5 specimens0

Note: If one result within the six determinations varies by more than ± 10 % from the mean of the six, discard this result and calculate the mean of the five remaining results.





Date: July 12, 2016

Test by: Pitcha J.

(Dr. Pitcha Jongvivatsakul)

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