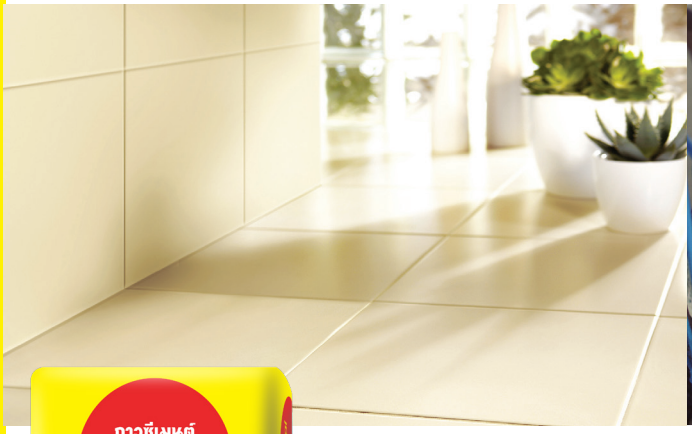
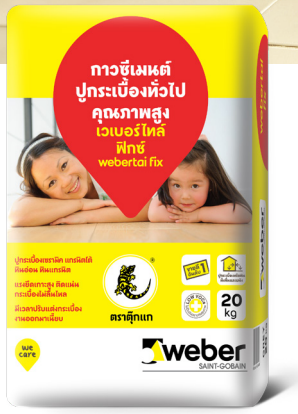


High quality tile adhesive with double bonding strength



webertai fix

ขายดีอันดับ 1

- Laying ceramic and clay tiles in small swimming pool
- With special additive providing anti-slip property
- Double bonding strength
- Low VOCs

webertai fix is pre-mixed high quality tile adhesive to mix with water giving double bonding strength for laying tiles on both floor and wall

- **SUITABLE FOR :** ceramic tiles, clay tiles, granito tiles, marbles, granites size up to 60 x 60 cm
- **PACKAGING :** 20 kg bag and 25 kg bag
- **COLOR :** grey
- **COVERAGE :** average 4 m^2/20 kg bag
  average 5 m^2/25 kg bag
- **APPLICATION**

Substrate preparation

- Substrate should be sound, level, and clean with nomal absorption rate
- In case of porous substrate with high absorption, dampen the surface before tiling
- For new render or screed, it should be fully cured at the rate of 7 days per 1 cm thickness before tiling

Mixing

Mixing **webertai fix** in water with the ratio of 1:3 by volume (1 part of water + 3 parts of **webertai fix**). Using slow-speed electric mixer to mix or gradually mix by hand until obtaining homogeneous lump-free paste. Leave for 3 – 4 minutes for chemical curing before using.

Tiling

1. Using notched trowel to spread tile adhesive onto substrate
2. Back buttering in case of laying tile bigger than 10 x 10 inches
3. Placing tiles on tile adhesive and knock gradually with rubber hammer
4. Clean the excess tile adhesive on tile surface
5. Tiles can be adjusted within 15 minutes after laying
6. Leave for 24 hours before grouting

- **SHELF LIFE AND STORAGE**
  One year after manufacturing date when stored unopened in dry and ventilated place. Store airtight in dry and ventilated conditions if remained in opened bag

TECHNICAL DATA

Type	Standard tile adhesive
Density of powder	1.40 g/cm^3
Chemical curing time	3 – 4 minutes
Pot life (in shade)	4 hours
Open time	20 minutes
Adjusting time	10 minutes
Recommended thickness	2 – 10 mm
Waiting time before grouting	24 hours

Remark: These test results are from laboratory test. They could be slightly different from on-site results because of the differences in applications and conditions

CERTIFED STANDARD

International/European standard		Standard	Result
Initial tensile adhesion strength ISO 13007 part 2-4.4.4.2 or EN 1348-8.2		≥ 0.5 N/mm^2	1.46 N/mm^2
Tensile adhesion strength after water immersion ISO 13007 part 2-4.4.4.3 or EN 1348-8.3		≥ 0.5 N/mm^2	1.31 N/mm^2
Open time tensile adhesion strength ISO 13007 part 2-4.1 or EN 1346		≥ 0.5 N/mm^2	0.72 N/mm^2
American Standard		**Standard**	**Result**
Shear strength according to ANSI A 118.1 – 2012			
- To glazed wall tiles	7 days	> 1.38 MPa	1.63 MPa
- To porcelain mosaics	1 day	> 0.34 MPa	0.49 MPa
	7 days	> 1.03 MPa	2.03 MPa
	28 days	> 1.03 MPa	2.22 MPa
	84 days	> 1.03 MPa	2.61 MPa
Water immersion shear strength according to ANSI A 118.1 – 2012			
- To glaze wall tiles	7 days	> 1.03 MPa	1.75 MPa
- To porcelain mosaic	7 days	> 0.69 MPa	2.26 MPa

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EXECTUTIVE SUMMARY

The Structural Engineering Laboratory, School of Engineering and Technology, Asian Institute of Technology (AIT) was engaged by the Saint - Gobain Weber Co.,Ltd., to conduct the performance test of cementitlious tile adhesive. The sample in the trademark of " weber.tai fix " was submitted by the Saint - Gobain Weber Co.,Ltd. The series of test were detailed in according with ISO 13007 / European Norms (EN 12004:2005) test methods as follows:

Specification of cementitious adhesives

Fundamental Characteristics			
1a Normal setting adhesives			
Characteristic	Requirement	Test Method	Results
Tensile adhesion strength	≥ 0.5 N/mm^2	ISO 13007 part 2 4.4.4.2 or EN 1348 § 8.2	PASS
Tensile adhesion strength after water immersion	≥ 0.5 N/mm^2	ISO 13007 part 2 4.4.4.3 or EN 1348 § 8.3	PASS
Open time : tensile adhesion strength	≥ 0.5 N/mm^2 after not less than 20 min	ISO 13007 part 2 4.1 or EN 1346	PASS

Regarding the testing, it was found that the properties of weber.tai fix are conformed to ISO 13007 / European Norms (EN 12004:2005) test methods as specified. These results certify the adequacy and representative character of test samples only.

Reference No: S0161-13

Date of Issue: 3 April 2013

Checked by:

MR. EKKACHAI YOOPRASERTCHAI
RESEARCH ASSOCIATE

Approved by:

ASIAN INSTITUTE OF TECHNOLOGY ★ AIT ★ STRUCTURAL ENGINEERING

DR. PENNUNG WARNITCHAI
LEADER OF CIVIL AND INFRASTRUCTURE ENGINEERING THEMATIC (CIE)
April 3, 2013

Doc. No. S0161A-13

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STRUCTURAL ENGINEERING LABORATORY

STRUCTURAL ENGINEERING FIELD OF STUDY

SCHOOL OF ENGINEERING AND TECHNOLOGY

TYPE OF TEST: **INITIAL ADHESION STRENGTH (EN 1348:2007)**

TEST SPECIMEN: Ten (10) specimens of Ceramic tile of size 50 x 50 x 5 mm. installed by using " weber.tai fix " were prepared in the SE laboratory. The mix proportion of water to " weber.tai fix " ratio was 25.0 % by weight.

CLIENT: **SAINT - GOBAIN WEBER CO., LTD.**

DATE OF TEST: February 22, 2013

TEST METHOD: After finish the preparation, the test units were placed in standard conditions for 27 days. Bond the pull head plate to the tile with the high strength epoxy and keep the test units for a further 24 hour in standard condition. Determine the tensile adhesive strength.

TEST RESULTS:

Specimen No.	Width of Specimen (mm.)	Length of Specimen (mm.)	Area (mm^2)	Maximum Load (N.)	Tensile Adhesion Strength (N/mm^2)	Remarks
1	50	50	2,500	4,070	1.63	Adhesive failure between tile and adhesive
2	50	50	2,500	3,874	1.55	Adhesive failure between tile and adhesive
3	50	50	2,500	4,854	1.94	Cohesive failure within the adhesive
4	50	50	2,500	3,776	1.51	Adhesive failure between tile and adhesive
5	50	50	2,500	3,962	1.58	Adhesive failure between tile and adhesive
6	50	50	2,500	3,089	1.24	Adhesive failure between tile and adhesive
7	50	50	2,500	2,834	1.13	Adhesive failure between tile and adhesive
8	50	50	2,500	2,972	1.19	Cohesive failure within the adhesive
9	50	50	2,500	3,236	1.29	Cohesive failure within the adhesive
10	50	50	2,500	3,942	1.58	Cohesive failure within the adhesive
				Average	**1.46**	

Note: This report certifies the adequacy and representative character of the test sample(s) only.

TESTED BY:

MR. APIRAK POORAT
TECHNICIAN

CHECKED BY:

MR. EKKACHAI YOOPRASERTCHAI
RESEARCH ASSOCIATE .

APPROVED BY:

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STRUCTURAL ENGINEERING LABORATORY

STRUCTURAL ENGINEERING FIELD OF STUDY

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TYPE OF TEST: **ADHESIVE STRENGTH AFTER WATER IMMERSION (EN1348:2007)**

TEST SPECIMEN: Ten (10) specimens of Ceramic tile of size 50 x 50 x 5 mm. installed by using " weber.tai fix " were prepared in the SE laboratory. The mix proportion of water to " weber.tai fix " ratio was 25.0 % by weight.

CLIENT: **SAINT - GOBAIN WEBER CO., LTD.**

DATE OF TEST: February 22, 2013

TEST METHOD: After finish the preparation, the test units were placed in standard conditions for 7 days and stored in water for 20 days. Bond the pull head plate to the tile with the high strength epoxy and keep the test units for a further 24 hour in in water at the standard temperature. Determine the tensile adhesive strength.

TEST RESULTS:

Specimen No.	Width of Specimen (mm.)	Length of Specimen (mm.)	Area (mm^2)	Maximum Load (N.)	Tensile Adhesion Strength (N/mm^2)	Remarks
1	50	50	2,500	3,168	1.27	Cohesive failure within the adhesive
2	50	50	2,500	4,168	1.67	Cohesive failure within the adhesive
3	50	50	2,500	3,109	1.24	Cohesive failure within the adhesive
4	50	50	2,500	3,207	1.28	Cohesive failure within the adhesive
5	50	50	2,500	3,138	1.26	Cohesive failure within the adhesive
6	50	50	2,500	2,972	1.19	Cohesive failure within the adhesive
7	50	50	2,500	2,697	1.08	Cohesive failure within the adhesive
8	50	50	2,500	3,285	1.31	Cohesive failure within the adhesive
9	50	50	2,500	4,139	1.66	Cohesive failure within the adhesive
10	50	50	2,500	2,991	1.20	Cohesive failure within the adhesive
				Average	**1.31**	

Note: This report certifies the adequacy and representative character of the test sample(s) only.

TESTED BY:

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CHECKED BY:

MR. EKKACHAI YOOPRASERTCHAI
RESEARCH ASSOCIATE.

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STRUCTURAL ENGINEERING LABORATORY

STRUCTURAL ENGINEERING FIELD OF STUDY

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TYPE OF TEST: **OPEN TIME (EN1346)**

TEST SPECIMEN: Thirty (30) specimens of Ceramic tile of size 50 x 50 x 5 mm. installed by using " weber.tai fix " were prepared in the SE laboratory. The mix proportion of water to " weber.tai fix " ratio was 25.0 % by weight.

CLIENT: **SAINT - GOBAIN WEBER CO., LTD.**

DATE OF TEST: February 22, 2013

TEST METHOD: Apply a thin layer of the adhesive to the concrete slab with a straight edge trowel. After 5, 10 and 20 minutes place the tiles on the adhesive and storage them under standard conditions for 27 days. Bond the pull head plates to the tiles with the high strength epoxy and keep the test units for a further 24 hour in standard condition. Determine the tensile adhesive strength.

TEST RESULTS:

Specimen No.	Tensile adhesion strength of specimen in different open time (N/mm^2)		
	5 (min.)	10 (min.)	20 (min.)
1	1.20	0.97	0.65
2	1.06	1.53	0.67
3	1.26	1.45	0.73
4	1.17	1.35	0.95
5	1.67	1.40	0.69
6	1.17	1.27	0.72
7	1.86	1.55	0.61
8	1.12	1.02	0.55
9	1.08	1.22	0.63
10	1.26	1.24	1.04
Average	1.28	1.30	0.72

Note: This report certifies the adequacy and representative character of the test sample(s) only.

TESTED BY:

MR. APIRAK POORAT
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CHECKED BY:

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Tests of dry-set cement mortar according ANSI A118.1:2012 - weber tai.fix

Working report Nº 315.37004-02/18

Client: **Saint-Gobain Weber Co., Ltd - Thailand**

Contact at client: **Kanchana LOCOLAS**

Contact at CTCV: **J. Valente de Almeida**

Work period: January - May 2018

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Tests of dry-set cement mortar according ANSI A118.1:2012 - weber tai.fix

Saint Gobain Weber Co Ltd - Thailand

Aim

Evaluate compliance of the test results with the requirements of ANSI A118.1: 2012[1].

1. Introduction

Saint Gobain Weber Co Ltd - Thailand requested the CTCV to carry out tests on dry-set cement mortar - weber tai.fix - in accordance with the American Standard ANSI A118.1.

This report presents the methodology of the tests, the results of the tests carried out and their comparison with the applicable regulatory requirements

2. Methodology

The methodology used in the study was the following:

-carrying out the tests

-processing of data

- reporting

2.1. Tests

The tests carried out are presented at table 1.

[1] ANSI A118.1:2012 - American National Standard Specifications for Dry-Set Cement Mortar.

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Table 1 - Tests according ANSI A118.1

Property	Test duration and/or conditions
Glazed wall tile shear strength (A1)	7 days 7 days water immersion
Porcelain mosaic tile shear strength (C)	1 day 7 days 7 days water immersion 28 days 12 weeks

2.2. Test results

The test results are presented at table 2.

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Table 2 - Test results

Ceramic	Test duration/condition	Specimen	Force (kN)	Tension (MPa)	Average (MPa)
A1	Shear initial, 7d	1	8,93	1,73	1,63
		2	7,36	1,43	
		3	8,07	1,56	
		4	9,21	1,78	
	Shear, after 7 d water immersion	1	9,29	1,80	1,75
		2	10,20	1,98	
		3	8,32	1,61	
		4	8,40	1,63	
C	Shear initial, 1d	1	0,89	0,48	0,49
		2	1,05	0,56	
		3	0,78	0,42	
		4	0,98	0,52	
	Shear initial, 7d	1	2,71	1,45	2,03
		2	4,10	2,19	
		3	3,67	1,96	
		4	4,72	2,52	
	Shear initial, 28d	1	5,47	2,93	2,22
		2	3,40	1,82	
		3	3,76	2,01	
		4	4,00	2,14	
	Shear initial, 12 weeks	1	4,93	2,64	2,61
		2	5,55	2,97	
		3	4,70	2,51	
		4	4,37	2,34	
	Shear, after 7 day water immersion	1	5,06	2,71	2,26
		2	3,58	1,91	
		3	4,58	2,45	
		4	3,68	1,97	

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3. Comparation with standard requirements

The comparation of test results with standard requirements is presented at Table 3.

Table 3 - Comparation of test results with standard requirements

Ceramic	Test duration/condition	Test result (MPa)	Requirements (MPa)	Compliance
A1	Shear initial, 7d	1,63	>1,38	Complies
	Shear, after 7 d water immersion	1,75	>1,03	Complies
C	Shear initial, 1d	0,49	>0,34	Complies
	Shear initial, 7d	2,03	>1,03	Complies
	Shear initial, 28d	2,22	>1,03	Complies
	Shear initial, 12 weeks	2,61	>1,03	Complies
	Shear, after 7 day water immersion	2,26	>0,69	Complies

Coimbra, 04 June 2018

Joaquim Valente de Almeida

Testing Materials Laboratory