



Asian Institute of Technology

Structural Engineering
School of Engineering and Technology

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EXECUTIVE SUMMARY

The Structural Engineering and Construction Program, 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 cementitious grouts. The sample in the trademark of "weber.color classic" was submitted by the Saint-Gobain Weber Co., Ltd. The series of test were detailed according to ISO 13007 / European Norms (EN 12004:2001) test methods as follows:

Specification of cementitious grouts (CG)

Fundamental Characteristics			
Characteristic	Requirement	Test Method	Results
Flexural strength under standard conditions	$\geq 3.5 \text{ N/mm}^2$	ISO 13007 part 4 clause 4.1.3 or EN12808-3	PASS
Compressive strength under standard conditions	$\geq 15 \text{ N/mm}^2$	ISO 13007 part 4 clause 4.1.4 or EN12808-3	PASS
Shrinkage	$\leq 2 \text{ mm/m}$	ISO 13007 part 4 clause 4.1.4 or EN12808-4	PASS

Regarding the testing results, it was found that the properties of "weber.color classic" are conformed to ISO 13007 / European Norms (EN 12004:2001) test methods as specified. These results certify the adequacy and representative character of test samples only.

Reference No: S0588-06 Date of Issue: 2 November 2006

Tested by: SE.laboratory

Approved by:
(Dr. San Sayamipuk)
Senior Laboratory Supervisor



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STRUCTURAL ENGINEERING LABORATORY

STRUCTURAL ENGINEERING FIELD OF STUDY

SCHOOL OF ENGINEERING AND TECHNOLOGY

TYPE OF TEST : FLEXURAL STRENGTH TEST (EN 12808-3)

TEST SPECIMEN: Three (3) specimens in prism shape were cast in the SE laboratory. The mix proportion of water to ' weber.color classic (weber.fermacolor) ' ratio was 33% by weight.

CLIENT: SAINT - GOBAIN WEBER CO., LTD.

DATE OF TEST: October 5, 2006

TEST METHOD: After mixing them thoroughly, the specimen was cast in the standard molds having a size of 40 x 40 x 160 mm. The specimens are cured for 24 hours in molds, then stripped and cured in standard condition until conducting the test.

TEST RESULTS : The flexural strength of specimens at the age of 28 days are shown below.

Specimen No.	Width of Specimen B (cm.)	Thickness of Specimen D (cm.)	Length of Specimen L (cm.)	Maximum Load P (kgf)	Flexural Strength Sf (kgf/cm ²)	Remarks
1	4.01	4.11	16	220	48.72	The flexural strength, Sf = $3 P l / (2 b d d)$. where l (span length) is 10 cm. * 1 kgf/cm ² = 0.0981 MPa.
2	4.09	4.12	16	215	46.45	
3	4.00	4.06	16	211	48.00	
				Average	47.72	Average flexural strength is 4.68 MPa. at 28-days age.

Note : This results certify the adequacy and representative character of the test samples only.

CHECKED & APPROVED BY :

DR. SUN SAYAMIPUK
SENIOR LABORATORY SUPERVISOR
November 2, 2006



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STRUCTURAL ENGINEERING LABORATORY

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TYPE OF TEST : COMPRESSIVE STRENGTH TEST (EN 12808-3)

TEST SPECIMEN: Three (3) specimens in prism shape were tested in the SE laboratory. The mix proportion of water to ' weber.color classic (weber.fermacolor) ' ratio was 33% by weight.

CLIENT: SAINT - GOBAIN WEBER CO., LTD.

DATE OF TEST: October 5, 2006

TEST METHOD: After flextural test, the halves broken specimens were kept in standard condition until conducting the compression test.

TEST RESULTS: The compressive strength of specimens at the age of 28 days are shown as follows.

Specimen No.	Date of Cast	Date of Test	Age of Specimen (days)	Cross Sectional Area (cm ²)	Maximum Load (kgf)	Compressive Strength (kgf/cm ²)	Remarks
1	07/09/06	05/10/06	28	16.00	4,390	274.40	* 1 kgf/cm ² = 0.0981 MPa. Average compressive strength of specimens is 26.94 MPa. at 28-days age.
2	07/09/06	05/10/06	28	16.00	4,500	281.24	
3	07/09/06	05/10/06	28	16.00	4,290	268.13	
					Average	274.59	

Note : This results certify the adequacy and representative character of the test samples only.

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STRUCTURAL ENGINEERING LABORATORY

STRUCTURAL ENGINEERING FIELD OF STUDY

SCHOOL OF ENGINEERING AND TECHNOLOGY

TYPE OF TEST : DETERMINATION OF SHRINKAGE (EN 12808-4)

TEST SPECIMEN: Three (3) specimens in prism shape were cast in the SE laboratory. The mix proportion of water to ' weber.color classic (weber.fermacolor) ' ratio was 33% by weight.

CLIENT: SAINT - GOBAIN WEBER CO., LTD.

DATE OF TEST: September 7 - October 5, 2006

TEST RESULTS: The shrinkage of specimens at the age of 28 days are shown as follows.

Specimen No.	Initial Length (mm.)	Final Length (mm.)	Drying Shrinkage of Specimen (mm./m.)
1	162.40	162.21	1.17
2	162.07	161.90	1.05
3	162.25	162.07	1.11

Note : This results certify the adequacy and representative character of the test samples only.

CHECKED & APPROVED BY :

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November 2, 2006

