

## webertec non-shrink grout+

Pre-mixed cementitious non-shrink grout with high compressive strength

- Suitable for
- ✓ Machine foundations
  - ✓ Carities, gaps, recesses
  - ✓ Rail beds foundations
  - ✓ Precast structure
  - ✓ Bridge bearings foundations
  - ✓ Anchor bolts

### ADVANTAGES

- Excellent flowability
- No bleeding
- High strengths
- Non-toxic, non-corrosive
- Impact and vibration resistant

- **PACKAGING:** 25 kg. / bag
- **COLOR:** Grey
- **COVERAGE:** Approximate 2 kg. of powder per 1 litre of mortar (For 1 m<sup>3</sup> of mortar approximately 70x25 kg. bags and 280 litres of water)

### ● SURFACE PREPATATION

1. Concrete surface must be free from oil, grease and dust. Loose contaminants and unsound concrete must be chipped away.
2. Make sure that bedplate, bolts, pipes or other materials, which may have surface contact with the grout free from rust, oil, grease and dust.
3. Dampener absorbent surface until reaching its saturated point. No standing water in side the formwork.

### ● MIXING

1. Mix the powder with pre-measured clean water to suit the desired consistency.
2. Mix approx 3.75-4 litres of water with 1 bag (25kg) of **webertec non-shrink grout+** (15-16% by weight of powder or water:powder ratio is 1:4 by volume)
3. Mix with an electrical mixer (Max.speed 500 rpm) or in a pan or revolving barrel type mixer. Stand the mixture approximately 3-5 minutes after mixing to achieve maximum results.

### ● APPLICATION

1. Formwork needs to be stable with out any gap to prevent the grout leak.
2. Pour mortar after mixing. Ensure that air entrapped into the grout is allowed to escape

3. In case of using machine ensure sufficient head of pressure is maintained to keep mortar flow uninterrupted.
4. To prevent rapid surface drying and crazing, curing the area for 3-7 days
5. Clean all tools and equipments with clean water immediately after use

### ● SHELF LIFE & 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	webertec non-shirnk grout+	
Density	140 g/cm <sup>3</sup> .	
Application temperature	+5°C and +40°C	
Guaranteed Standard		
Test	Result	
Compressive strength ASTM C109	1 day	250 ksc
	7 day	500 ksc
	28 day	700 ksc
Flexural strength ASTM C348	1 day	7 N/mm <sup>2</sup>
	7 day	9 N/mm <sup>2</sup>
	28 day	9 N/mm <sup>2</sup>
Setting time ASTM C-807	Initial Setting time	2 hour 30 minute
	Final Setting time	3 hour
Bleeding	0%	

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

**AIT****Asian Institute of Technology**

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**STRUCTURAL ENGINEERING LABORATORY**  
**STRUCTURAL ENGINEERING FIELD OF STUDY**  
**SCHOOL OF ENGINEERING AND TECHNOLOGY**

TYPE OF TEST: **COMPRESSIVE STRENGTH TEST ( ASTM C109 )**TEST SPECIMEN: Three (3) cubes having a nominal size of 50x50x50 mm made of "Weber.tec non-shrink grout<sup>+</sup>" were prepared in SE laboratory. The water to "Weber.tec non-shrink grout<sup>+</sup>" ratio was 12% by weight.CLIENT: **SAINT-GOBAIN WEBER CO., LTD.**

DATE OF TEST: July 8, 2017

TEST METHOD: After mixed thoroughly, the mixed specimen was cast in the 2" standard test cubes. The cubes are cured for 24 hours in the molds, then stripped and cured in room temperature until they reached the required test age.

## TEST RESULTS:


Specimen No.	Date of Cast	Date of Test	Age of Specimen (days)	Weight of Specimen (g)	Cross Sectional Area (cm <sup>2</sup> )	Maximum Load (kgf)	Compressive Strength (kgf/cm <sup>2</sup> )	Remarks
1	07/07/17	08/07/17	1	279	25.33	12,390	489.23	*1 kgf/cm <sup>2</sup> = 0.0981 MPa. Average compressive strength is 47.37 MPa at 1 day(s) aged.
2	07/07/17	08/07/17	1	277	25.25	11,980	474.45	
3	07/07/17	08/07/17	1	278	25.20	12,230	485.31	
						Average	482.99	

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

TESTED BY:

CHECKED &amp; APPROVED BY:

  
 MR. RUNGROJ JANGJIT  
 TECHNICIAN

  
 DR. ANAWAT CHOTESUWAN  
 SENIOR LABORATORY SUPERVISOR  
 August 8, 2017



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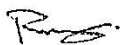
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**TYPE OF TEST:** COMPRESSIVE STRENGTH TEST ( ASTM C109 )**TEST SPECIMEN:** Three (3) cubes having a nominal size of 50x50x50 mm made of "Weber.tec non-shrink grout<sup>+</sup>" were prepared in SE laboratory. The water to "Weber.tec non-shrink grout<sup>+</sup>" ratio was 12% by weight.**CLIENT:** SAINT-GOBAIN WEBER CO., LTD.**DATE OF TEST:** July 14, 2017**TEST METHOD:** After mixed thoroughly, the mixed specimen was cast in the 2" standard test cubes. The cubes are cured for 24 hours in the molds, then stripped and cured in room temperature until they reached the required test age.**TEST RESULTS:**

Specimen No.	Date of Cast	Date of Test	Age of Specimen (days)	Weight of Specimen (g)	Cross Sectional Area (cm <sup>2</sup> )	Maximum Load (kgf)	Compressive Strength (kgf/cm <sup>2</sup> )	Remarks
1	07/07/17	14/07/17	7	281	25.43	21,110	830.23	*1 kgf/cm <sup>2</sup> = 0.0981 MPa.
2	07/07/17	14/07/17	7	288	25.35	21,610	852.43	Average compressive strength is 81.29 MPa at 7 day(s) aged.
3	07/07/17	14/07/17	7	283	25.38	20,400	803.89	
						Average	828.85	

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**TYPE OF TEST:** COMPRESSIVE STRENGTH TEST ( ASTM C109 )

**TEST SPECIMEN:** Three (3) cubes having a nominal size of 50x50x50 mm made of "Weber.tec non-shrink grout"<sup>+</sup> were prepared in SE laboratory. The water to "Weber.tec non-shrink grout"<sup>+</sup> ratio was 12% by weight.

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

**DATE OF TEST:** August 4, 2017

**TEST METHOD:** After mixed thoroughly, the mixed specimen was cast in the 2" standard test cubes. The cubes are cured for 24 hours in the molds, then stripped and cured in room temperature until they reached the required test age.

**TEST RESULTS:**


Specimen No.	Date of Cast	Date of Test	Age of Specimen (days)	Weight of Specimen (g)	Cross Sectional Area (cm <sup>2</sup> )	Maximum Load (kgf)	Compressive Strength (kgf/cm <sup>2</sup> )	Remarks
1	07/07/17	04/08/17	28	285	25.45	24,330	955.92	*1 kgf/cm <sup>2</sup> = 0.0981 MPa. Average compressive strength is 93.54 MPa at 28 day(s) aged.
2	07/07/17	04/08/17	28	282	25.38	24,230	954.83	
3	07/07/17	04/08/17	28	279	25.28	24,030	950.72	
<b>Average</b>							<b>953.82</b>	

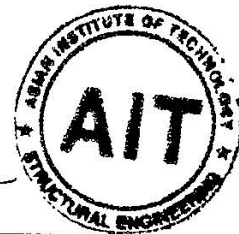
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**TYPE OF TEST:** COMPRESSIVE STRENGTH TEST ( ASTM C109 )

**TEST SPECIMEN:** Three (3) cubes having a nominal size of 50x50x50 mm made of "Weber.tec non-shrink grout"<sup>+</sup> were prepared in SE laboratory. The water to "Weber.tec non-shrink grout"<sup>+</sup> ratio was 16% by weight.

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

**DATE OF TEST:** July 8, 2017

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Specimen No.	Date of Cast	Date of Test	Age of Specimen (days)	Weight of Specimen (g)	Cross Sectional Area (cm <sup>2</sup> )	Maximum Load (kgf)	Compressive Strength (kgf/cm <sup>2</sup> )	Remarks
1	07/07/17	08/07/17	1	273	25.55	7,230	282.96	*1 kgf/cm <sup>2</sup> = 0.0981 MPa.
2	07/07/17	08/07/17	1	270	25.50	6,830	267.83	Average compressive strength is 26.73 MPa at 1 day(s) aged.
3	07/07/17	08/07/17	1	266	25.10	6,700	266.93	
						Average	272.57	

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TESTED BY:

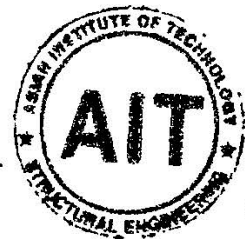
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**CLIENT:** SAINT-GOBAIN WEBER CO., LTD.

**DATE OF TEST:** July 14, 2017

**TEST METHOD:** After mixed thoroughly, the mixed specimen was cast in the 2" standard test cubes. The cubes are cured for 24 hours in the molds, then stripped and cured in room temperature until they reached the required test age.

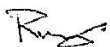
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1	07/07/17	14/07/17	7	272	25.25	13,730	543.75	*1 kgf/cm <sup>2</sup> = 0.0981 MPa. Average compressive strength is 53.82 MPa at 7 day(s) aged.
2	07/07/17	14/07/17	7	271	25.30	14,380	568.36	
3	07/07/17	14/07/17	7	274	25.15	13,440	534.39	
						<b>Average</b>	<b>548.83</b>	

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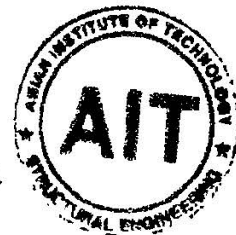
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DATE OF TEST: August 4, 2017

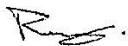
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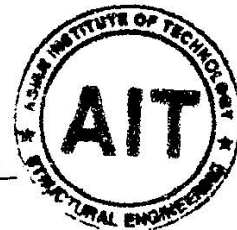
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1	07/07/17	04/08/17	28	274	25.35	17,910	706.48	*1 kgf/cm <sup>2</sup> = 0.0981 MPa.
2	07/07/17	04/08/17	28	275	25.28	18,440	729.56	Average compressive strength is 70.92 MPa at 28 day(s) aged.
3	07/07/17	04/08/17	28	274	25.25	18,520	733.45	
						Average	723.16	

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**TYPE OF TEST:** FLEXURAL STRENGTH TEST ( ASTM C348 )

**TEST SPECIMEN:** Three (3) specimens of standard prisms shape made of " Weber.tec non-shrink grout+ " were prepared in SE laboratory. The water to " Weber.tec non-shrink grout+ " ratio was 16% by weight. The tests were carried out at Saint-Gobain-Weber factory under a supervision of SE laboratory.

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

**DATE OF TEST:** July 8, 2017 **DATE OF CAST :** July 7, 2017

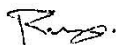
**TEST METHOD:** After thoroughly mixed, the specimen was cast in the standard molds having a size of 40 x 40 x 160 mm. After curing in molds for 24 hours, they were removed from molds and cured in room temperature until they reached the required test age.

**TEST RESULTS :** The flexural strength of specimens at the age of 1 day are shown as follows.

Specimen No.	Width of sample B (mm)	Thickness of sample D (mm)	Length of sample L (mm)	Maximum Load P (kN)	Flexural Strength Sf (N/mm <sup>2</sup> )	Remarks
1	40.0	40.1	160.0	2.64	7.39	The flexural strength, Sf = $3 P l / (2 b d d)$ . where l (span length) is 120 mm.
2	40.1	40.0	160.0	2.88	8.08	
3	40.0	40.0	160.0	2.94	8.27	
				Average	7.91	

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

WITNESSED BY:

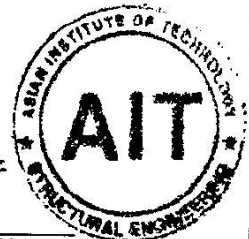


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**CLIENT:** SAINT - GOBAIN WEBER CO., LTD.

**DATE OF TEST:** August 4, 2017 **DATE OF CAST :** July 7, 2017

**TEST METHOD:** After thoroughly mixed, the specimen was cast in the standard molds having a size of 40 x 40 x 160 mm. After curing in molds for 24 hours, they were removed from molds and cured in room temperature until they reached the required test age.

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

Specimen No.	Width of sample B (mm)	Thickness of sample D (mm)	Length of sample L (mm)	Maximum Load P (kN)	Flexural Strength Sf (N/mm <sup>2</sup> )	Remarks
1	40.3	40.6	160.0	5.24	14.20	The flexural strength, Sf = $3 P l / (2 b d d)$ . where l (span length) is 120 mm.
2	39.7	40.6	160.0	5.26	14.47	
3	40.7	40.4	160.0	5.20	14.09	
				Average	14.25	

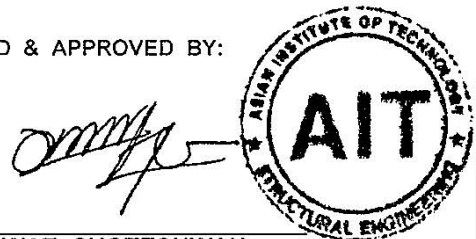
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**CLIENT:** SAINT - GOBAIN WEBER CO., LTD.

**DATE OF TEST:** July 14, 2017 **DATE OF CAST :** July 7, 2017

**TEST METHOD:** After thoroughly mixed, the specimen was cast in the standard molds having a size of 40 x 40 x 160 mm. After curing in molds for 24 hours, they were removed from molds and cured in room temperature until they reached the required test age.

**TEST RESULTS :** The flexural strength of specimens at the age of 7 days are shown as follows.

Specimen No.	Width of sample B (mm)	Thickness of sample D (mm)	Length of sample L (mm)	Maximum Load P (kN)	Flexural Strength Sf (N/mm <sup>2</sup> )	Remarks
1	40.2	40.1	160.0	4.65	12.95	The flexural strength, Sf = $3 P l / (2 b d d)$ . where l (span length) is 120 mm.
2	40.3	40.0	160.0	4.81	13.43	
3	40.5	40.7	160.0	4.60	12.34	
				Average	12.91	

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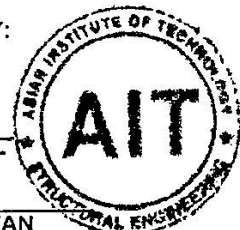
WITNESSED BY:

*Rungroj*

MR. RUNGROJ JANGJIT  
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CHECKED & APPROVED BY:

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2	40.0	40.0	160.0	3.77	10.60	
3	40.1	40.1	160.0	3.90	10.89	
				<b>Average</b>	<b>10.81</b>	

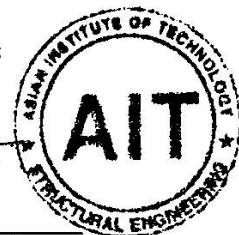
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MR. RUNGROJ JANGJIT  
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN  
SENIOR LABORATORY SUPERVISOR  
August 15, 2017

## Asian Institute of Technology

Km. 42 Paholyothin Highway, Klong Luang, Pathumthani, Thailand 12120

P. O. Box 4 Klong Luang, Pathumthani 12120, Thailand. Tel. (66-2) 524-5527, 524-6427 Fax. (66-2) 524-5544

### STRUCTURAL ENGINEERING LABORATORY

### STRUCTURAL ENGINEERING FIELD OF STUDY

### SCHOOL OF ENGINEERING AND TECHNOLOGY

**TYPE OF TEST:** FLEXURAL STRENGTH TEST ( ASTM C348 )**TEST SPECIMEN:** Three (3) specimens of standard prisms shape made of " Weber.tec non-shrink grout+" were prepared in SE laboratory. The water to " Weber.tec non-shrink grout+" ratio was 16% by weight. The tests were carried out at Saint-Gobain-Weber factory under a supervision of SE laboratory.**CLIENT:** SAINT - GOBAIN WEBER CO., LTD.**DATE OF TEST:** July 14, 2017**DATE OF CAST :** July 7, 2017**TEST METHOD:** After thoroughly mixed, the specimen was cast in the standard molds having a size of 40 x 40 x 160 mm. After curing in molds for 24 hours, they were removed from molds and cured in room temperature until they reached the required test age.**TEST RESULTS :** The flexural strength of specimens at the age of 7 days are shown as follows.

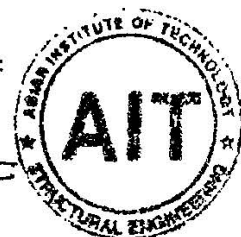
Specimen No.	Width of sample B (mm)	Thickness of sample D (mm)	Length of sample L (mm)	Maximum Load P (kN)	Flexural Strength Sf (N/mm <sup>2</sup> )	Remarks
1	40.6	41.4	160.0	3.63	9.39	The flexural strength, Sf = $3 P l / (2 b d d)$ . where l (span length) is 120 mm.
2	40.5	41.2	160.0	4.20	11.00	
3	40.0	40.1	160.0	3.41	9.54	
				Average	9.98	

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

WITNESSED BY:

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**TYPE OF TEST:** FLEXURAL STRENGTH TEST ( ASTM C348 )

**TEST SPECIMEN:** Three (3) specimens of standard prisms shape made of " Weber.tec non-shrink grout+" were prepared in SE laboratory. The water to " Weber.tec non-shrink grout+" ratio was 16% by weight. The tests were carried out at Saint-Gobain-Weber factory under a supervision of SE laboratory.

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

**DATE OF TEST:** August 4, 2017 **DATE OF CAST :** July 7, 2017

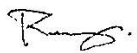
**TEST METHOD:** After thoroughly mixed, the specimen was cast in the standard molds having a size of 40 x 40 x 160 mm. After curing in molds for 24 hours, they were removed from molds and cured in room temperature until they reached the required test age.

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

Specimen No.	Width of sample B (mm)	Thickness of sample D (mm)	Length of sample L (mm)	Maximum Load P (kN)	Flexural Strength Sf (N/mm <sup>2</sup> )	Remarks
1	40.0	40.6	160.0	3.63	9.91	The flexural strength, Sf = $3 P l / (2 b d d)$ , where l (span length) is 120 mm.
2	40.6	40.9	160.0	3.74	9.91	
3	40.5	40.6	160.0	3.60	9.71	
				<b>Average</b>	<b>9.84</b>	

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

WITNESSED BY:

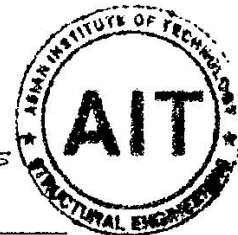


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**STRUCTURAL ENGINEERING LABORATORY**  
**STRUCTURAL ENGINEERING FIELD OF STUDY**  
**SCHOOL OF ENGINEERING AND TECHNOLOGY**

**TYPE OF TEST:** SETTING TIME BY MODIFIED VICAT NEEDLE (ASTM C-807)

**TEST SPECIMEN:** Three (3) cubes having a nominal size of 50x50x50 mm made of "Weber.tec non-shrink grout™" were prepared in SE laboratory. The water to "Weber.tec non-shrink grout™" ratio was 16% by weight.

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

**DATE OF TEST:** July 7, 2017

**TEST METHOD:** After mixed thoroughly, the paste was tested for penetration resistance using standard 2 mm vicat needle until there is no crack observed on the surface.

**TEST RESULTS:**

Time	Elapsed	Reading	Remark
9:00	0:00		Start Mixing
9:30	0:30	40.00	
10:45	1:45	40.00	
11:00	2:00	40.00	
11:05	2:05	36.00	
11:10	2:10	22.00	
11:15	2:15	16.00	
11:20	2:20	9.50	
11:25	2:25	4.00	
11:30	2:30	0.50	
11:35	2:35	0.00	cracking
11:40	2:40	0.00	cracking
11:45	2:45	0.00	cracking
11:50	2:50	0.00	cracking
11:55	2:55	0.00	cracking
12:00	3:00	-	no crack

The initial setting time is  
2 hour 19 minute


The final setting time is  
3 hour 0 minute

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

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