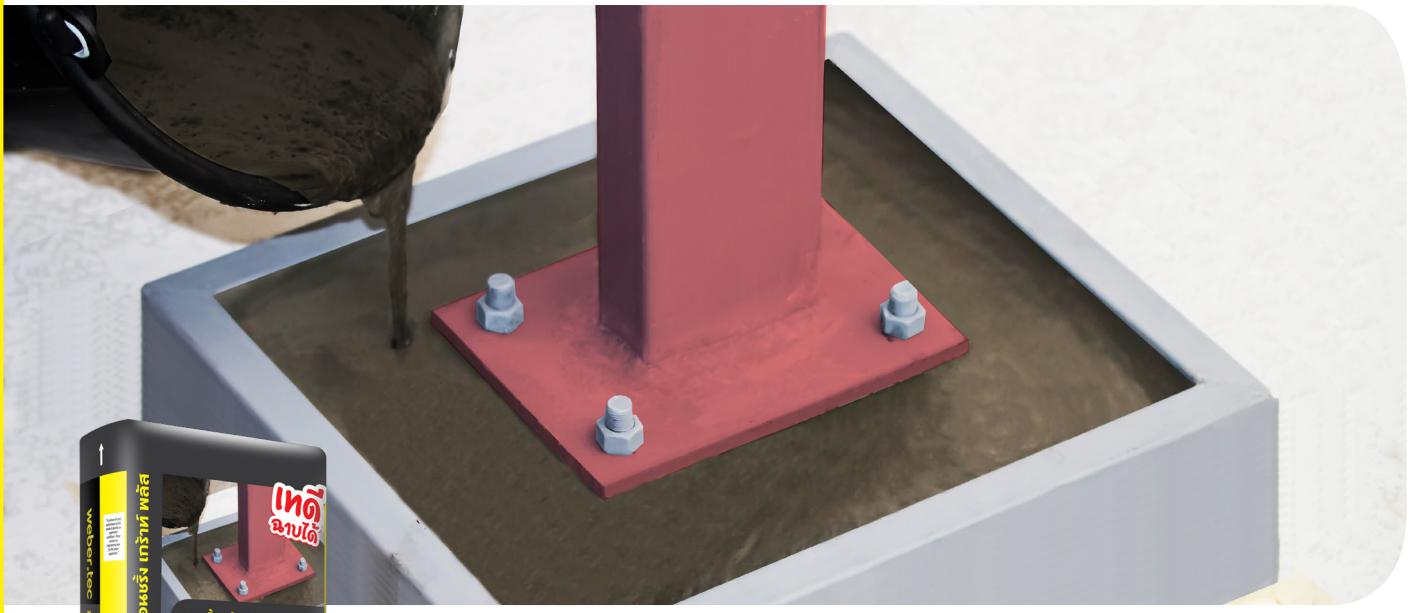



เวเบอร์เทค นอนชริ้งเกร้าท์ พลัส

ซีเมนต์มอร์ตาร์ชนิดไม่หดตัว ปรับระดับได้เอง ให้กำลังอัดสูง สำหรับงานใช้เทเกร้าท์

เหมาะสำหรับ

- งานเทฐานเครื่องจักร
- งานเทฐานรองรับรางรถไฟ
- งานเทฐานรองคานสะพาน
- งานซ่อมรูโพรงในงานคอนกรีต
- งานโครงสร้างคอนกรีตสำเร็จรูป
- งานยึดฝังสลักเกลียว (Anchor Bolt)

คุณสมบัติการใช้งาน

- สามารถไหลตัวได้ดีเยี่ยม
- ไม่มีการเยิ้ม
- ค่ารับกำลังอัดสูง
- ไม่กัดกร่อน
- ทนต่อแรงสั่นสะเทือน และแรงกระแทกได้ดี

- **ขนาด :** ถุงละ 25 กก.
- **สี :** เทา
- **ปริมาณการใช้งาน :** ผงซีเมนต์เกร้าท์ประมาณ 2 กก. /ปริมาตรมอร์ตาร์ 1 ลิตร (สำหรับ 1 ลูกบาศก์เมตร ใช้จำนวน 70x25 กิโลกรัมและน้ำ 280 ลิตร)

- **การเตรียมพื้นผิว**

1. พื้นผิวคอนกรีต จะต้องแข็งแรง สะอาด ปราศจากคราบน้ำมัน คราบจารบี เศษซีเมนต์ และสิ่งสกปรกต่างๆ
2. พื้นผิวเหล็ก จะต้องปราศจากคราบสนิม น้ำมัน จารบี
3. พรมน้ำบริเวณที่จะใช้งานให้มีความชื้นพอเหมาะ สำหรับพื้นผิวที่มีการดูดซึมน้ำสูงและระวังไม่ให้มีน้ำขัง

- **วิธีการผสม**

1. ตวงน้ำลงในภาชนะที่จะทำการผสม
2. ผสม **เวเบอร์เท็ค นอนชริ้ง เกร้าท์ พลัส** 25 กก. กับน้ำ 3.75-4 ลิตร (น้ำ 15-16% ของน้ำหนักปูน) หรือ ปูน 4 ส่วน : น้ำ 1 ส่วน โดยปริมาตร สำหรับงานเกร้าท์
3. ผสมให้เข้าเป็นเนื้อเดียวกัน ถ้าผสมปริมาณน้อยต่อครั้งสามารถใช้การกวนด้วยเกรียงได้ หากใช้ปริมาณมากให้ใช้การผสมด้วยเครื่องผสม (ความเร็วรอบไม่เกิน 500 รอบต่อนาที) หลังผสมควรตั้งพักไว้ 3-5 นาที เพื่อให้ส่วนผสมเข้าเป็นเนื้อเดียวกันและลดฟองอากาศในส่วนผสม

- **วิธีการใช้งาน**

1. ตรวจสอบการติดตั้งไม้แบบ ต้องแข็งแรงแน่นหนาและอุดร่องเพื่อป้องกันการรั่วไหลของมอร์ตาร์
2. เท **เวเบอร์เท็ค นอนชริ้ง เกร้าท์ พลัส** ลงในแบบที่เตรียมไว้ โดยเทจากด้านใดด้านหนึ่งและระวังอย่าให้เกิดฟองอากาศในเนื้อมอร์ตาร์

- **วิธีการใช้งาน (ต่อ)**

3. กรณีใช้เครื่องจักรในการผีดเกร้าท์ จะต้องควบคุมแรงดันในการเกร้าท์ให้สม่ำเสมอและต่อเนื่อง
4. ควรบ่มพื้นผิวทันทีเมื่อแห้งพอ และควรบ่มทิ้งไว้ 3-7 วัน
5. ควรล้างทำความสะอาดเครื่องมือต่างๆ ด้วยน้ำสะอาดทันทีที่เสร็จงาน

- **อายุการใช้งานและการเก็บรักษา**

1 ปีนับจากวันผลิต โดยที่ยังอยู่ในสภาพไม่เปิดถุง และถูกเก็บไว้ในที่ร่ม แห้ง ไม่ชื้น อากาศถ่ายเทสะดวก (ถ้าใช้ไม่หมดควรปิดถุงให้แน่นสนิท)

ข้อมูลทางเทคนิค

ประเภท	ผลทดสอบ
ความหนาแน่น	1.40 กรัม/ซม.^{3}
อุณหภูมิระหว่างการใช้งาน	+5°C และ +40°C

มาตรฐานการรับรอง

การทดสอบ	ผลทดสอบค่ามาตรฐาน
ค่ารับกำลังอัด (Compressive strength ASTM C109)	
1 วัน	250 ksc
7 วัน	500 ksc
28 วัน	700 ksc
ค่ารับแรงดัด (Flexural strength ASTM C348)	
1 วัน	7 N/mm^2
7 วัน	9 N/mm^2
28 วัน	9 N/mm^2
ระยะเวลาก่อตัว (ASTM C-807)	
การก่อตัวระยะต้น (Initial Setting time)	2 ชั่วโมง 30 นาที
การก่อตัวระยะปลาย (Final Setting time)	3 ชั่วโมง
อัตราการเยิ้ม (Bleeding)	0%

หมายเหตุ : ผลการทดสอบเหล่านี้ได้มาจากห้องทดลองตัวอย่างอาจจะแตกต่างกับผลที่ได้จากการผสมที่หน่วยงานเนื่องจากวิธีการใช้และสภาพของหน่วยงานที่แตกต่างกัน

weber SAINT-GOBAIN
เวเบอร์ ตราตุ๊กแก

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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+" were prepared in SE laboratory. The water to "Weber.tec non-shrink grout+" 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^2)	Maximum Load (kgf)	Compressive Strength (kgf/cm^2)	Remarks
1	07/07/17	08/07/17	1	279	25.33	12,390	489.23	*1 kgf/cm^2 = 0.0981 MPa.
2	07/07/17	08/07/17	1	277	25.25	11,980	474.45	Average compressive strength is 47.37 MPa at 1 day(s) aged.
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:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 8, 2017

Doc. No. S0319B-17

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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+" were prepared in SE laboratory. The water to "Weber.tec non-shrink grout+" 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^2)	Maximum Load (kgf)	Compressive Strength (kgf/cm^2)	Remarks
1	07/07/17	14/07/17	7	281	25.43	21,110	830.23	*1 kgf/cm^2 = 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**	

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

TESTED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 8, 2017

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Doc. No. S0319C-17

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+" were prepared in SE laboratory. The water to "Weber.tec non-shrink grout+" 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^2)	Maximum Load (kgf)	Compressive Strength (kgf/cm^2)	Remarks
1	07/07/17	04/08/17	28	285	25.45	24,330	955.92	*1 kgf/cm^2 = 0.0981 MPa.
2	07/07/17	04/08/17	28	282	25.38	24,230	954.83	Average compressive strength is 93.54 MPa at 28 day(s) aged.
3	07/07/17	04/08/17	28	279	25.28	24,030	950.72	
						Average	**953.82**	

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

TESTED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017

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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+" 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 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^2)	Maximum Load (kgf)	Compressive Strength (kgf/cm^2)	Remarks
1	07/07/17	08/07/17	1	273	25.55	7,230	282.96	*1 kgf/cm^2 = 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**	

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

TESTED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 8, 2017

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Doc. No. S0319E-17

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+" 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 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^2)	Maximum Load (kgf)	Compressive Strength (kgf/cm^2)	Remarks
1	07/07/17	14/07/17	7	272	25.25	13,730	543.75	*1 kgf/cm^2 = 0.0981 MPa.
2	07/07/17	14/07/17	7	271	25.30	14,380	568.36	Average compressive strength is 53.82 MPa at 7 day(s) aged.
3	07/07/17	14/07/17	7	274	25.15	13,440	534.39	
						Average	**548.83**	

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

TESTED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 8, 2017

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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+" 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: 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^2)	Maximum Load (kgf)	Compressive Strength (kgf/cm^2)	Remarks
1	07/07/17	04/08/17	28	274	25.35	17,910	706.48	*1 kgf/cm^2 = 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**	

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

TESTED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017

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Doc. No. S0319K-17

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 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^2)	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:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017

Doc. No. S0319J-17

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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 12% 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^2)	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**	

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

WITNESSED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017

Doc. No. S0319I-17

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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 12% 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^2)	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**	

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

WITNESSED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017

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Doc. No. S0319H-17

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 12% 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^2)	Remarks
1	40.1	40.0	160.0	3.90	10.94	The flexural strength, Sf = 3 P l / (2 b d d). where l (span length) is 120 mm.
2	40.0	40.0	160.0	3.77	10.60	
3	40.1	40.1	160.0	3.90	10.89	
				Average	**10.81**	

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

WITNESSED BY:

MR. RUNGROJ JANGJIT
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August 15, 2017

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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^2)	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:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

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August 15, 2017

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Doc. No. S0319M-17

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: 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^2)	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	
				Average	**9.84**	

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

WITNESSED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017

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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.

TESTED BY:

MR. RUNGROJ JANGJIT
TECHNICIAN

CHECKED & APPROVED BY:

DR. ANAWAT CHOTESUWAN
SENIOR LABORATORY SUPERVISOR
August 15, 2017