YangMei Laboratory, Testing Department 1

No.525, Xinming St., Yangmei Dist., Taoyuan City 326, Taiwan (R.O.C.)

Tel: (886-3)4727262 Fax: (886-3)4727245

Pages: 1 of 2

Test Report of NSR Silcate Resin

Report No. : RB-1500123

Receive Date: 2015, 07, 28

Report Date: 2015, 07, 30

Project Name: CL212 ZiQiang Tunnel Construction Project

FORTUNE Construction Co., Ltd. Client:

Client's Address: 10F., No.160, Sec. 6, Minquan E. Rd., Neihu Dist., Taipei

City 114, Taiwan (R.O.C.)

Contractor: FORTUNE Construction Co., Ltd.

Supplier: WECAND Enterprise Co., Ltd.

Sampler: SINOTECH Engineering Consultants, Ltd. :Li, Yun-Cheng

FORTUNE Construction Co., Ltd.: Deng, Kai-Zhong

Transporter: remark 5

N/A Witness:

Remarks: 1. This report is responsible for the test samples only.

- 2. The content of this report shall not be reproduced except in full.
- 3. This report will be preserved for 3 years.
- 4. Owner: Eastern Region Engineering Office, Railway

Recontruction Bureau, Taiwan

Construction Supervisor: SINOTECH Engineering Consultants, Ltd. Sampling date: 2015.07.23

(The informations of this section are provided by client)

5. The testing samples were originally transported to Tung-Tai Engineering Material Testing Laboratory(Report No. 15-02837) by Deng, Kai-Zhong(FORTUNE Construction Co., Ltd.) on 2015.07.24 11:35, and our laboratory was reguested to conduct the test, and received this samples by post.

> For and on behalf of WECAND ENTERPRISE CO., LTD.

> Authorized Signature(s)

Laboratory Supervisor: IN Approval Signatory:



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Test Report of NSR Silcate Resin

Report No. : RB-1500123

Test Date: 2015.07.30

Materials[Specification]:

Silcate Resin (Technical code for design and construction

of Tunnel, Sections 02432)

Specimen Number	Product Grade	Product Marking
1		

Test Item	Test Results	Requirement for Specification	Test Method
Specific Gravity			
Agent A	1.47	1.47 ± 0.03	remark 1
Agent B	1.20	1.20 ± 0.03	
Reaction Time(s)	30	30 ~ 180	remark 2
Expansion Ratio(%)	15. 2	≥ 6	remark 3
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Remarks: 1. The test is made at 20 $^{\circ}\text{C}$ with hydrometer.

- 2. After uniform mixing by the ratio Agent A: Agent B=1:1 (proportion by weight) designated by the applicant, record time from the beginning of foaming to the complete of foaming.
- 3. After uniform mixing by the ratio Agent A: Agent B = 1:1 (proportion by weight) designated by the applicant, record the height of foaming and caculation foaming expansion ratio.

For and on behalf of WECAND ENTERPRISE CO., LTD.

Authorized Signature(s)

Laboratory Supervisor:

Approval Signatory: (