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TEST REPORT

(This Report is issued subject to the terms & conditions set out below)

Your Ref: - Our Ref: MM-31732/LL/2 Date: 02 January 2012

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Subject : Testing of GFRP Rebar submitted by Sato Kogyo (S) Pte Ltd on 02 January 2013.

Tested For : **FiReP Rebar AG**
Alte Jonastrasse 83
CH-8640 Rapperswil
Switzerland

Attn: Mr. Marc Schurch

Date and Place of Test : 02 January 2013 at Setsco Laboratory, Singapore


Method of Test : Tension Load Test
The test sample was clamped on the Universal Testing Machine in a vertical position. Tension load was applied at a rate of 220MPa/min until failure. Maximum load and E-Modulus were then recorded.

Description of Sample : Three (03) pieces of GFRP Rebar with approximately total length of 1500mm (Refer to Photograph 1 attached) were received as follows:

S/No	Description	Qty
01	Ø16 GFRP Rebar	03

Results : Tension Load Test
Refer to Table attached.

Witnesses : Mr. Funakoshi (Sato Kogyo)
Ms. Tay Li Ying (Basler & Hofmann)


LAWRENCE LIM
Testing Officer


NG AIK MIU
Engineer (Mechanical Testing)
Mechanical Technology Division

ReportsOthers/2012/meiyi

Terms & conditions:

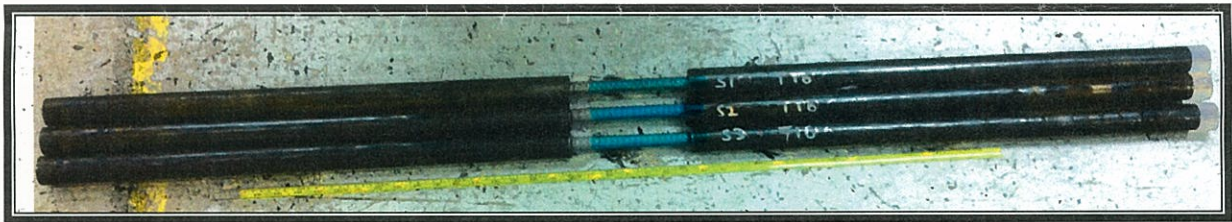
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Results:

Table 1 : Tension Load Test

Sample Reference	Ø16mm GFRP Rebar		
	S1	S2	S3
Nominal Cross-sectional Area (mm ²) #	201		
Overall Length (mm)	1500		
Exposed Length (mm)	159	152	158
Maximum Load (kN)	217.5	222.2	221.4
Tensile Strength (N/ mm ²)	1082.1	1105.5	1101.5
Tensile E-Modulus (GPa)	64	64	63
Mode of Failure	Failure of the bar (See Photograph 2 attached)		

– Based on Client's Sample Reference.



Photograph 1 : Show samples submitted



Photograph 2 : Show tested samples

Samir

Jim