

**SETSCO SERVICES PTE LTD**

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## TEST REPORT

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

Your Ref: -

Our Ref: MM-30523/TAS

Date: 17 October 2012

Page 1 of 2

**Subject** : Testing of GFRP Rebar submitted by FiReP Rebar AG on 08 October 2012.

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

**Attn:** Mr. Marc Schurch

**Date and Place of Test** : 10 October 2012 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 gradually until failure. Maximum load and E-Modulus were then recorded.

**Description of Sample** : Three (03) pieces of GFRP Rebar with approximately total length of 1160mm (Refer to Photograph 1 attached) was received as follows:

S/No	Description	Qty
01	Ø24 GFRP Rebar	03

**Results** : Tension Load Test  
Refer to Table attached.

**Witnesses** : Mr. Park Jintak (Tuksu)  
Mr. Jayr Nigos (Sam Woh)  
Ms. Tay Li Ying (Basler & Hofmann)  
Mr. Nyo Nyo San [QP (S) RE]

  
TAN AH SIONG  
Testing Officer

  
LAWRENCE LIM  
Executive Engineer (Mechanical Testing)  
Mechanical Technology Division

ReportsOthers/2012txm

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**Results:**

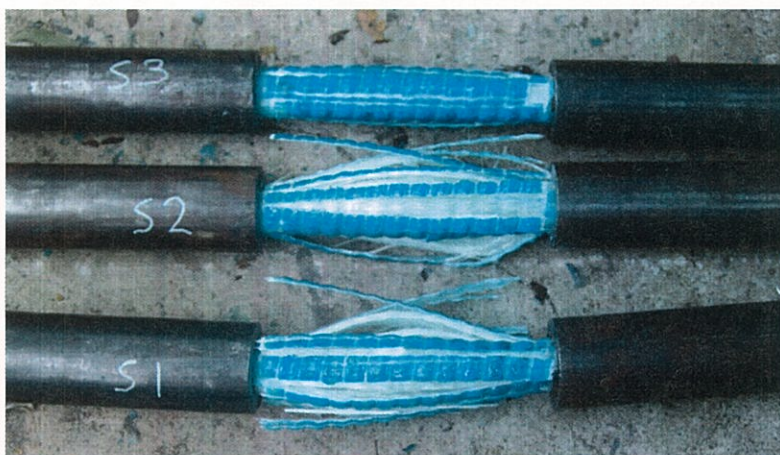
**Table : Tension Load Test**

Sample Reference	Ø24mm GFRP Rebar		
	S1	S2	S3
Nominal Cross-sectional Area (mm <sup>2</sup> ) #	452		
Overall Length (mm)	1160		
Exposed Length (mm)	160	162	158
Maximum Load (kN)	532.6	535.7	535.0
Tensile Strength (N/ mm <sup>2</sup> )	1178.3	1185.2	1183.6
Tensile E-Modulus (GPa)	66	66	66
Mode of Failure	Failure of the bar (See Photograph 2 attached)		

# - Based on Client's Sample Reference.



**Photograph 1 : Show sample submitted**



**Photograph 2 : Show tested sample**