

Department of Civil engineering  
Structural Engineering Laboratory

Date: 13/02/2020

To,  
MRG composites  
Plot No 236, Batch No. 2  
Kishan cement gate  
N.H. 27, Shapar,  
Gujarat-360024

Subject: Bond Strength of GFRP bars of 7 mm diameter supplied by MRG composites

The following table summarises the bond test results of GFRP bars carried out in our laboratory.  
Samples were prepared in accordance with ASTM D7913-2014.

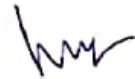
**Table 1: Compressive strength of concrete cubes**

S. No.	Sample name	Specimen	Peak compressive strength(MPa)
1	Sample-1	Cube	25.24
2	Sample-2	Cube	26.56
3	Sample-3	Cube	22.66

**Table 2: Bond Strength of GFRP Rebars with Embedment of 35 mm**

S.No.	Specimen ID	Nominal diameter (mm)	Peak Load (kN)	Peak Displacement (mm)	Bond strength (MPa)
1	GFRP-B-1	7.2	8.77	3.66	10.88
2	GFRP-B-2	7.1	7.35	6.36	8.54
3	GFRP-B-3	7.3	11.16	8.08	14.24



  
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Subject: Testing of GFRP bars of different diameter supplied by MRG composites

The following table summarises the tensile test results of GFRP bars carried out in the laboratory.

Table 1. Tensile Test Results of GFRP Bars

S.No.	Specimen ID	Nominal Diameter (mm)	Peak Load (kN)	Peak Displacement (mm)	Elastic Modulus (GPa)	Tensile Strength (MPa)
1	GFRP -1-1	5.2	23.2	10.18	56	1078
2	GFRP -1-2	4.9	25.4	11.50	60	1321
3	GFRP -1-3	4.9	19.7	10.89	58	1028
4	GFRP -1-4	5.1	23.5	10.07	61	1225
5	GFRP -1-5	5.4	24.4	11.80	56	1075
6	GFRP -2-1	6.4	40.1	15.16	51	1262
7	GFRP -2-2	5.8	37.0	13.32	61	1391
8	GFRP -2-3	6.0	35.7	13.66	57	1248
9	GFRP -2-4	5.9	32.3	11.62	59	1167
10	GFRP -2-5	6.0	34.8	11.78	58	1235

