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Adhesive Anchor Pull Out Testing with Mr. Bond 360 ml

Ace Gas Conversions Pvt. Ltd.

Report prepared by – Bharat Singbal

Date –15th September 2019

**Site Address – E-13, Harihar Compound,
Krishna Complex, Mankoli, Dapoda,
Dapoda, Taluka – Bhiwandi, Thane.**

**Client Name – Ace Gas Conversions Pvt. Ltd.,
B-1, Ground Floor, Gala no. 2,
Pritesh Complex, Anjur Phata,
Dapoda Road, Val village,
Bhiwandi, Thane – 421302.**

Client Reference –Mr. Mayur Sawant

This report discusses the process and the results from anchor pull out test conducted on site at E-13, Harihar Compound, Mankoli. The purpose of this test was to determine the adhesive bond pull-out strength using Mr. Bond 360 ml and anchor bolt when placed into existing concrete.

INTRODUCTION –



An M12 X 250 mm Chemical anchor bolt was fixed into an existing concrete slab on site using Pure Epoxy Resin based Mr. Bond 360 ml and allowed to cure for 24 hours.

Upon setting, the bolt was then pulled from the concrete structure using a hollow hydraulic jack and ultimate pull out load was measured. The detailed process and findings are as follows.

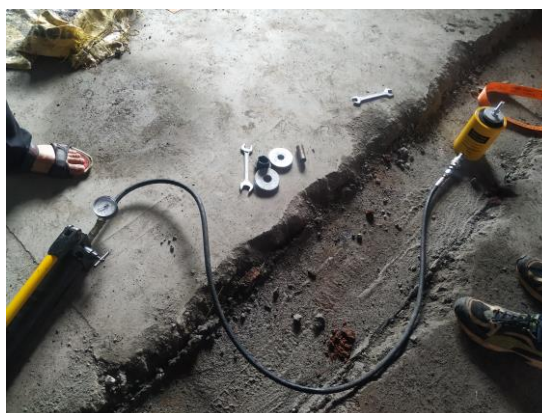
PREPARATION –

The test as designed to include one M12 Chemical anchor bolt into existing concrete using Mr. Bond 360 ml. Length of the bolt was 250 mm while embedment depth was 150 mm (6").

Hole was thoroughly cleaned to ensure there was no dust or moisture that would negatively impact the curing of the mortar. Once the hole was cleaned, Mr. Bond was injected in the hole. Bolt was then inserted in the hole ensuring there were no air bubbles. The bolt was then left alone for 24 hours to allow for mortar to fully cure.

TEST SETUP –

A hollow hydraulic jack and single acting piston cylinder were used for this test.



RESULT –



Bolt Size	Hole Diameter	Hole Depth	Pull out Load value
M12 X 250 mm	14 mm	150 mm	5.96 Ton (58.5kN)

CONCLUSION –

The load was acceptable. It has to be noted that even at this load, there was neither concrete nor epoxy failure. Even the bolt was intact.

Overall, pure Epoxy Resin based Chemical Mortar, Mr. Bond 360 performed well as a bonding agent for Ace Gas Conversions Pvt. Ltd.