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Client: Vivacity Engineering
Job Number: 10654
Project: Testing of Bond Properties
Test Type: Shear
Test Method: In-House
Test Date: 27/05/2014

Substrate Material: Magnesium Oxide Board
Substrate Thickness (mm): 10
Surface Preparation: Waterproofing / Sealing Resin Megapoxy H with 1mm Sand
Adhesive Resin: Megapoxy PM in two pats approximately 75mm diameter (See Figure below)

Procedure: A substrate was prepared as above and left to cure. A piece of granite some 250 x 150 x 30mm thick was adhered to the prepared substrate as above. Two pats of adhesive were applied to give a bonded diameter of 75 - 80mm each, and a thickness of some 10mm. The assemblies were left to cure for at least a week.
The substrate was clamped firmly to a test bed, and shear load applied along the 250mm length of the granite until failure occurred. The axis of thrust was applied at the middle of the 150 x 30mm face.

Test Results

Specimen Number	*Failure Load (kN)*	*Failure Region (See Below)*	
		Ram End	*Other End*
1	14.5	Substrate	Substrate
2	38.7	Adhesive/Stone	Substrate/Adhesive
3	21.7	Adhesive/	Adhesive
4	25.1	Stone	Stone
5	23.8	Stone	Substrate
6	19.4	Substrate	Substrate
7	17.6	Substrate	Substrate
8	17.1	Substrate	Substrate

NOTE: "Failure Region" refers to the location in the specimen where the failure occurred at the respective end / adhesive pat. The Ram was located at the left hand end of the specimen in the adjacent figures

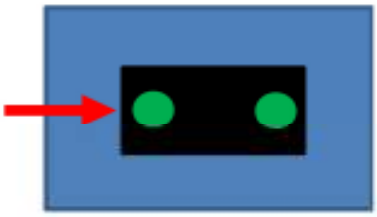

Figure 1 - Specimen Plan

Figure 2 - Specimen Elevation

Key: Blue = Substrate
Green = Adhesive
Black = Black Granite
Red = Axis of Thrust