

## PULL-OUT TEST REPORT

<b>Report Number</b>	LS21-2458-01 LT	<b>Test Date</b>	29/10/2021-01/11/2021
<b>Customer</b>	<b>Firecrunch Australasia Pty Ltd</b>		
<b>Customer Address</b>	Suite 19, Level 44, 25 Martin Place, Sydney NSW 2000		
<b>Requested By</b>	Peter Jones	<b>Purchase Order</b>	COD
<b>Issuing Laboratory</b>	LMATS Sydney Laboratory		
<b>Job Location</b>	1C/137 Silverwater Rd, Silverwater NSW 2128 – LMATS Pty Ltd		
<b>Job Description</b>	Pull-out load test of M12 blind bolt in composite pane		
<b>Product Description (As Supplied by Client)</b>	K FLOOR / SYDW-S-TG19 ,19mm thick 300X300 TG19 FIRECRUNCH (MgSO4) magnesium oxide sulphate composite, density 1.15g/cm3		
<b>Identification</b>	Client's Specified Activities – Determine max pull-out load		
<b>Material Specification</b>	As outlined in Technical Data		
<b>Test Specification</b>	Hilti DPG-100 Anchor Tester – L1584		
<b>Test Method</b>	Composite panel 300 x 300mm M12 x 70mm Blind Bolt		
<b>Equipment Data</b>	Single bolt Test Set-up was completed as per Figure 2		
<b>Technical Data</b>	Four bolt Test Set-up was completed as per Figure 4 Nut was tightened until max load was achieved Refer to Table 1 Muhammed Sabah Refer to Figures 6-7 for photographs of failure location Refer to Table 1		
<b>Evaluation Data</b>			
<b>Test Technician</b>			
<b>Remarks</b>			
<b>Test Results</b>			

**Signature**

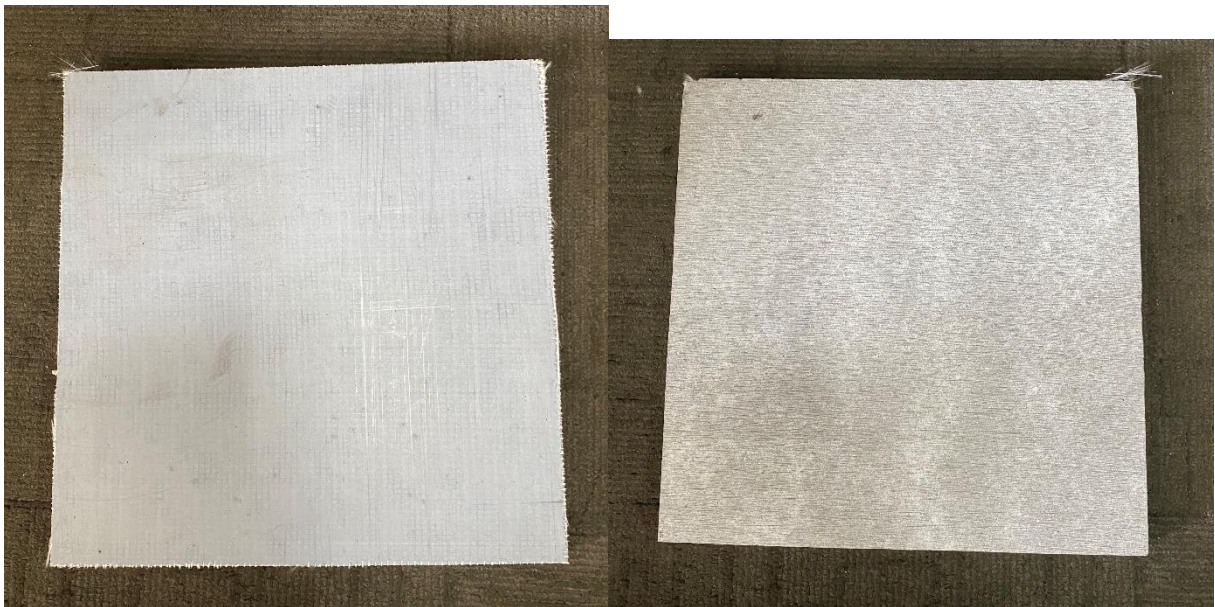
B.Eng (Materials)



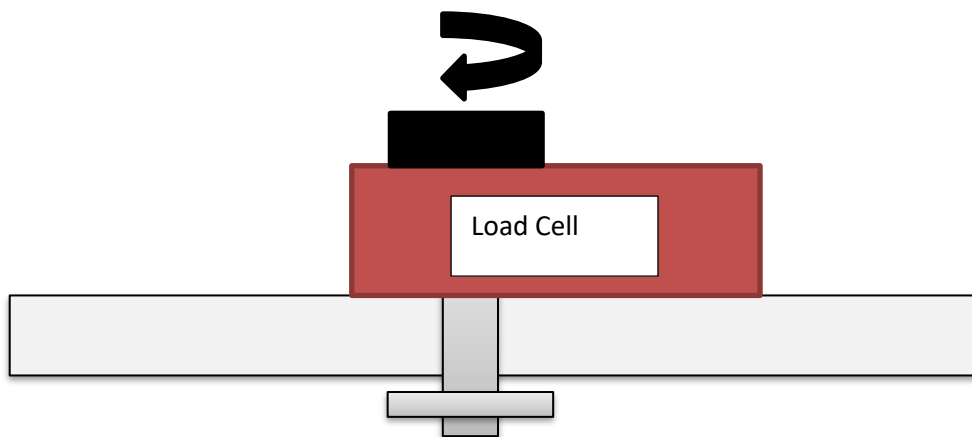
Muhammed Sabah  
3/11/2021

**Table 1 Pull-out test data**

Sample ID	Test Number	Screw Size	Max Load (kN)	Average Failure Load (kN)
TG19HD – Shiny side (Single Bolt)	1	M12 x 70mm	2.7	2.3
	2	M12 x 70mm	2.2	
	3	M12 x 70mm	2.2	
	4	M12 x 70mm	2.1	
TG19HD – Rough side (Single Bolt)	1	M12 x 70mm	3.2	3.1
	2	M12 x 70mm	3.1	
	3	M12 x 70mm	3.1	
TG19HD – Shiny side (Four Bolt)	1	4 off M12 x 70mm	7.3	7.3
TG19HD – Rough side (Four Bolt)	1	4 off M12 x 70mm	7.2	7.2



**Figure 1 Photograph of as-received panel - Smooth (LHS) Rough (RHS)**



**Figure 2 Diagram of test setup – Single Bolt**

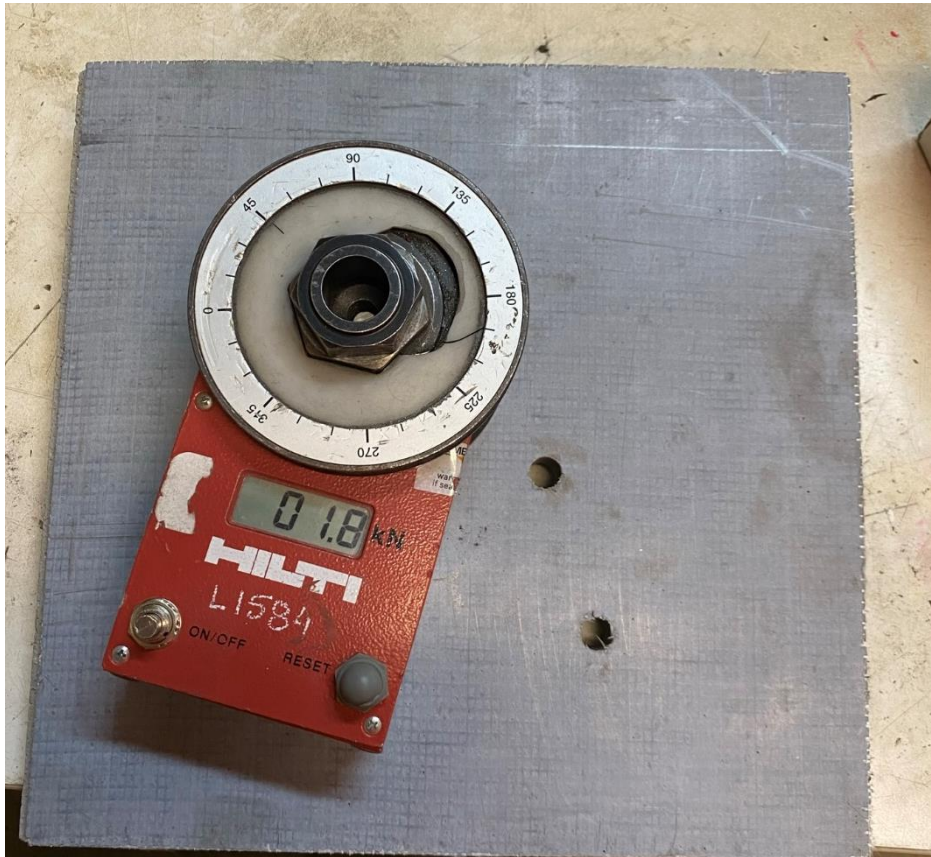


Figure 3 Photograph of test setup – Single Bolt

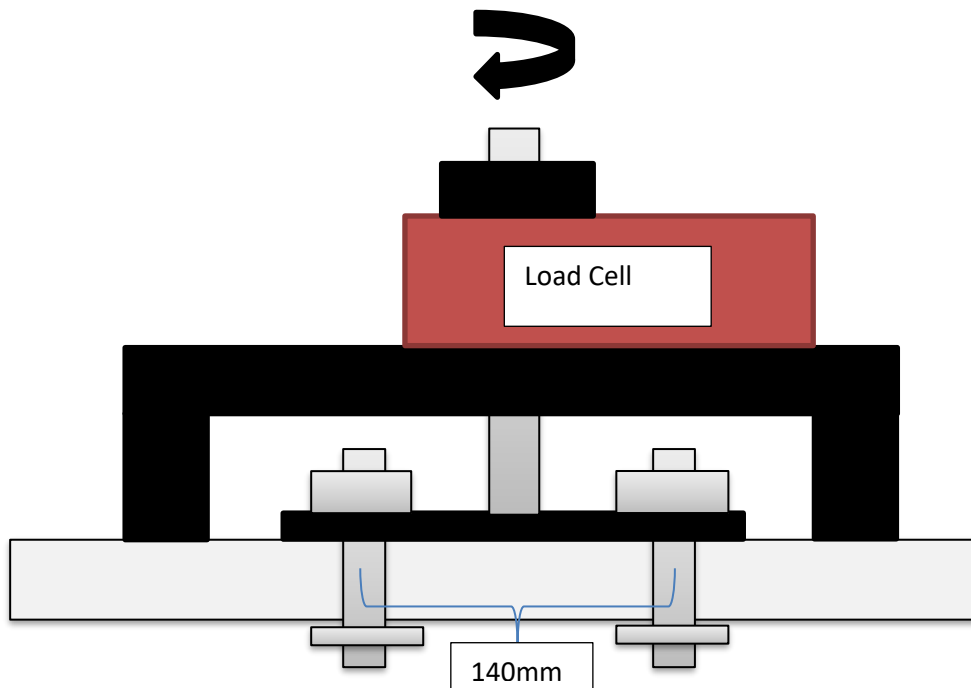


Figure 4 Photograph of test setup – Four Bolts





Figure 5 Photograph of test setup – Four Bolts



Figure 6 Typical failure of single bolt test



**Figure 7 Typical failure of four bolt test (Rough Side up)**

**Notes**

1. All test and inspection items will be discarded after 6 weeks, unless retrieved by the clients representative.
2. Samples, identification of samples and all job specific details were supplied by the client.
3. Any stated nominal pipe sizes and nominal thickness of the material were provided by the client.
4. Where applicable, the Measurement Uncertainty (MU) applies to the test results as per LMATS procedure. MU can be obtained by contacting one of the LMATS ISO 17025 accredited laboratory.
5. If this report does not specify acceptance criteria, then the test or inspection results should be referred to a competent authority for further action.
6. This report shall not be reproduced except in full without approval of the issuing laboratory to ensure that parts of a report are not taken out of context. The client or their representatives shall not edit this report.
7. LMATS or its professional indemnity insurance provider do not indemnify the contents within this report or the conformity of a tested product unless the invoice for the reported work is paid in full within the agreed credit terms. Reports will be revoked if the invoice for the completed work is not paid in full.