

GENERAL TEST REPORT

Report Number	LS22-2372 LT	Test Date	11/11/2022
Customer	Clever Building Solutions (Safe-Pave)		
Customer Address	3/95 Jemma Road, Prestons, NSW 2170		
Requested By	Cel McCuskey	Purchase Order	COD
Accredited Laboratory	LMATS Sydney Laboratory		
Job Description	Modulus of Rupture testing on 7 off pavers		
Identification	Clever Building Solutions, Safe-Pave 20mm x (600mm x 600mm) pavers		
Material Specification	Porcelain paver with reinforcement composite base coating		
Test Specification	Client's specification, report MOR		
Test Method	ISO 10545 – 4 :2019 Clause 7		
Technical Data	Pavers were tested as supplied without prior aging or conditioning Pavers were set in the test machine onto 20mm rollers lined with rubber spaced 580mm apart, 10mm from opposing paver edges Downwards force was applied via an additional 20mm, rubber lined roller along the centreline of the paver at a rate of 1N/mm² per second (±0.2N/mm²)		
Evaluation Data	Breaking loads of paver and reinforcement coating recorded separately Refer to Table 1 and Table 2		
Test Technician	External Testing laboratory Reference No. 20380		
Remarks	This test represents the performance of pavers sitting on two parallel rollers, not pavers sitting on pedestals		
Test Results	E – data to be evaluated by the client		

LMATS is Accredited for compliance with
ISO/IEC 17025 – Testing
Accreditation Number 15840

Signature

Materials Engineer


Hillman Lao
18/11/2022

Format no. MF-RP-01 (I1,R8)

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Table 1: MOR test results of pavers

Specimen	Width (mm)		Average Width b (mm)	Thickness (mm)		Breaking Load F (kN)	Breaking Strength S (kN)	Modulus of Rupture R (MPa)
	A	B		Maximum	Minimum h			
1	600	600	600	20.0	20.0	7.08	6.85	25.7
2	600	600	600	20.0	20.0	8.11	7.84	29.4
3	600	600	600	20.0	20.0	7.89	7.63	28.6
4	600	600	600	20.0	20.0	7.96	7.70	28.9
5	600	600	600	20.0	20.0	7.49	7.24	27.1
6	600	600	600	20.0	20.0	6.71	6.49	24.3
7	600	600	600	20.0	20.0	7.52	7.26	27.2
Average						7.54	7.29	27.3
SD						0.50	0.49	1.8

Remarks

Samples remained attached by reinforcement layer following this stage of testing
 Samples further deformed until max load for breaking of reinforcement coating reached (See Table 2)

Table 2: MOR test results of reinforcement composite base coating

Specimen	Width (mm)		Average Width b (mm)	Thickness (mm)		Breaking Load F (kN)	Breaking Strength S (kN)	Modulus of Rupture R (MPa)
	A	B		Maximum	Minimum h			
1	600	600	600	20.0	20.0	2.5	2.5	9.2
2	600	600	600	20.0	20.0	2.4	2.3	8.8
3	600	600	600	20.0	20.0	2.7	2.6	9.8
4	600	600	600	20.0	20.0	2.2	2.1	7.9
5	600	600	600	20.0	20.0	2.3	2.2	8.2
6	600	600	600	20.0	20.0	2.0	2.0	7.3
7	600	600	600	20.0	20.0	2.1	2.0	7.7
Average						2.3	2.2	8.4
SD						0.2	0.2	0.9

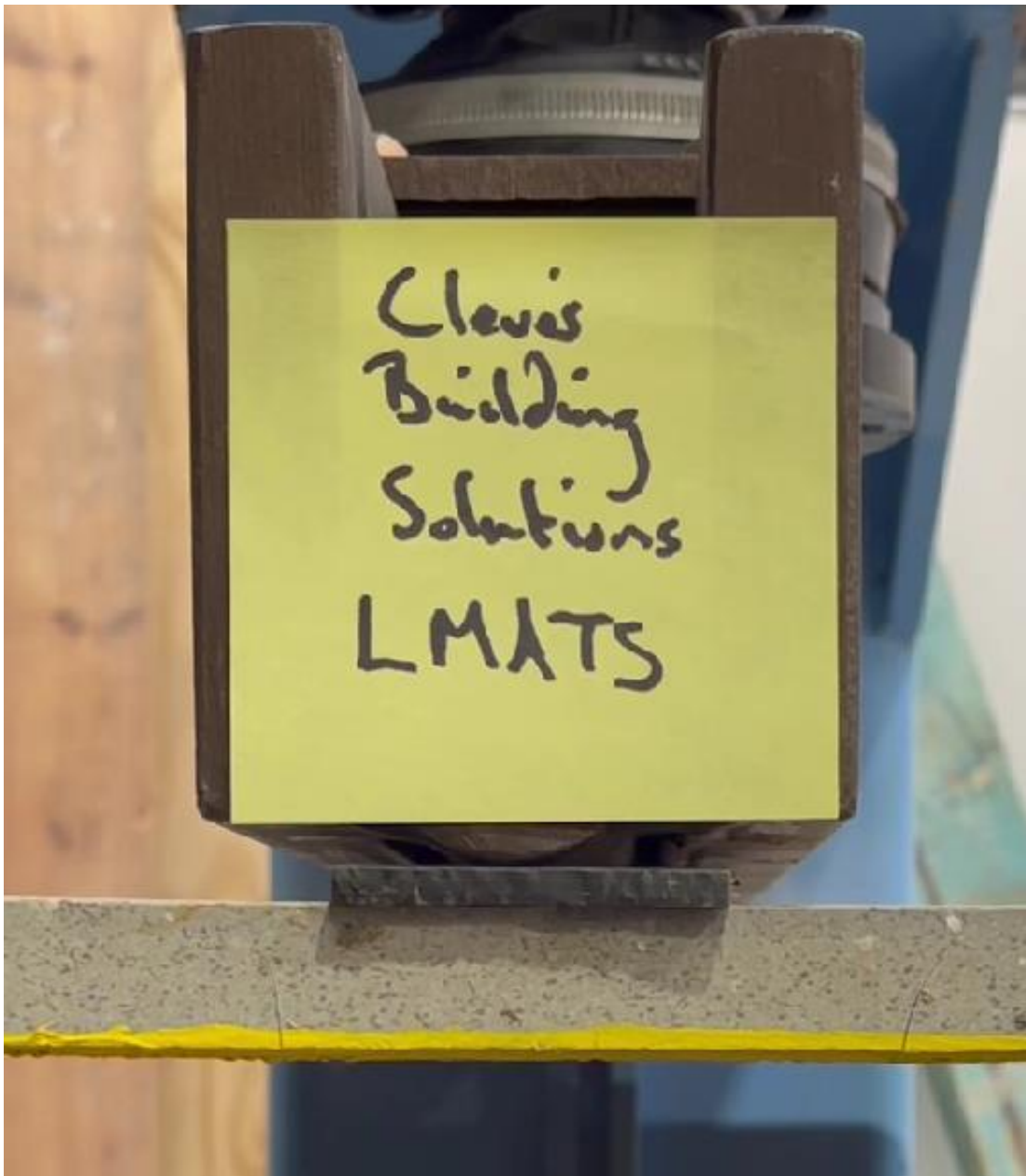


Figure 1 – Photograph of test specimen 1 after breaking of paver (7.08kN)

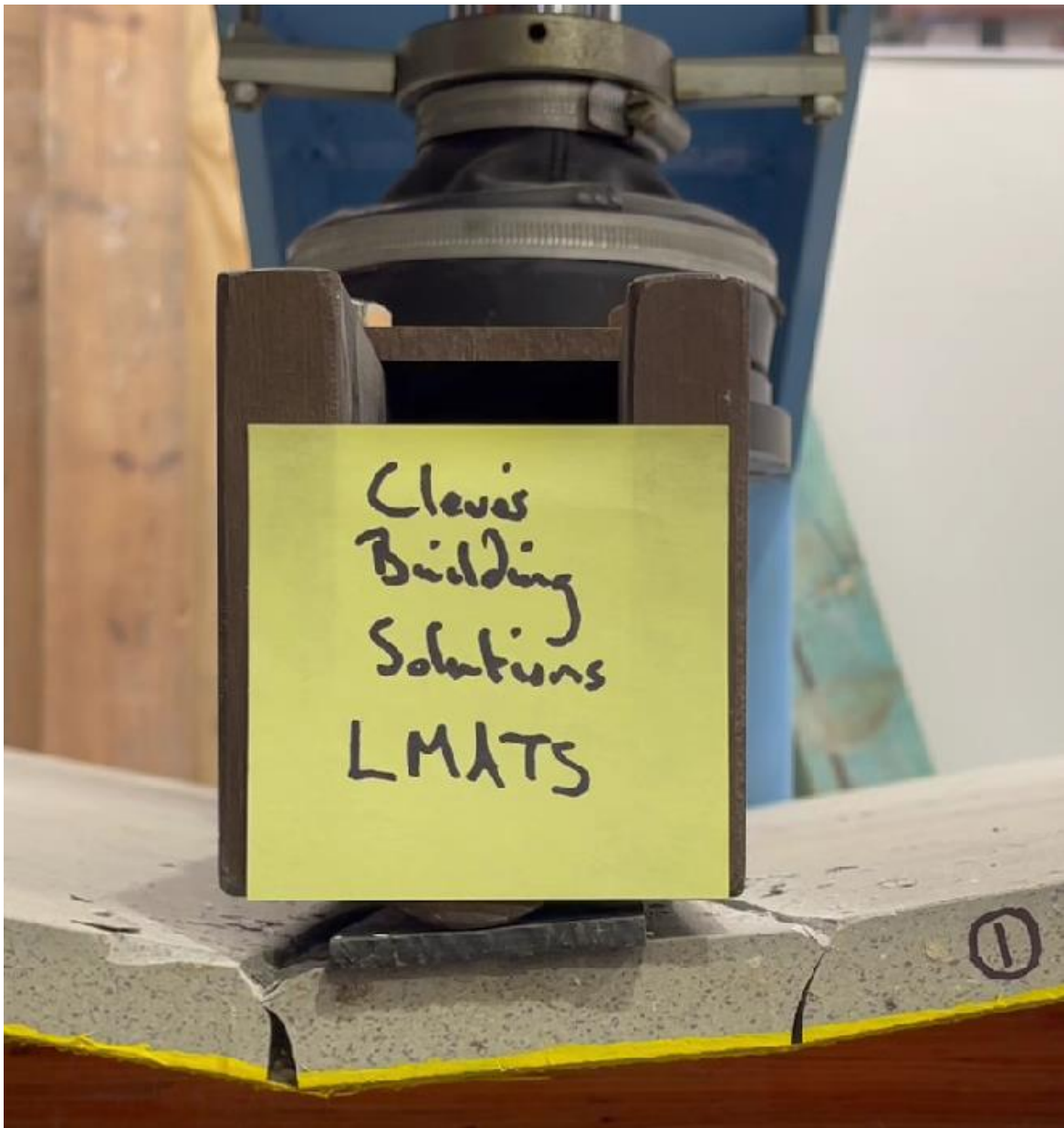


Figure 2 – Photograph of test specimen 1 after max load of 2.5kN. Surface cracking observed on Safepave protective layer but was still attached to tile after testing

Remarks Reinforcement remained partially intact following test, preventing full tile separation and breakthrough of former

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.
8. Testing was performed by external laboratory, Reference No. 20380.