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TEST REPORT

REPORT NO : 2022CB0378

PAGE : 1 OF 6

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Applicant : VIVO RAISER SDN BHD
No: 9 & 10, Jalan PKNK 3/7,
Kawasan Perusahaan Sungai Petani,
08000 Sungai Petani,
Kedah.

Manufacturer : VIVO RAISER SDN BHD

Product : TECHNOBOND 380 Grey

Reference Standard / Method of Test : 1) BS EN 1015-7: 1999,
Methods of test for mortar for masonry – Part 7: Determination of air content of fresh mortar
2) BS EN 1015-10: 1999,
Methods of test for mortar for masonry – Part 10: Determination of dry bulk density of hardened mortar
3) BS EN 1015-11: 1999,
Methods of test for mortar for masonry – Part 11: Determination of flexural and compressive strength of hardened mortar
4) BS EN 1015-12: 2016,
Methods of test for mortar for masonry – Part 12: Determination of adhesive strength of hardened rendering and plastering mortars on substrates

Description of sample : One (1) bag of 10 kg TECHNOBOND 380 Grey was received for testing
Model: 380 Grey
Brand: TECHNOBOND

Date Received of Complete Application : 17 November 2022

Job No. : J20221330052

Description of Test Results : The test results of the submitted test sample are described in Page 2, 3, 4, & 5 of this test report.

Issued Date : 29 December 2022

Approved Signatory;

(HANON NAZIR BIN MOHD BASIR)
Senior Testing Executive



(RAJA NOR SIHA BINTI RAJA ABDUL HANAN)
Head
Civil & Construction Section
Testing Services Department

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TEST RESULTS:

Product : TECHNOBOND 380 Grey
 Mix ratio : 20 % of water
 Method of test : BS EN 1015-7: 1999,
 Methods of test for mortar for masonry – Part 7: Determination of air content of fresh mortar

NO	TYPE OF TEST METHOD	TEST RESULTS
1.	Determination of air content by method A: Pressure Methods	<u>Air Content</u> 1) 7.5 % 2) 9.0 % Mean: (8.5 ± 0.49*) % - nearest 0.5 %

Note:

- 1) Testing period – 1st November 2022 to 22nd December 2022
- 2) Where the reported uncertainty is calculated using a coverage factor $k=2$, which gives a level of confidence of approximately 95%.
- 3) *Denotes measurement uncertainty

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TEST RESULTS:

Product : TECHNOBOND 380 Grey
 Mix ratio : 20 % of water
 Method of test : BS EN 1015-10: 1999,
 Methods of test for mortar for masonry – Part 10: Determination of dry bulk density of hardened mortar

NO	TYPE OF TEST METHOD	TEST RESULTS
1.	Determination of dry bulk density of hardened mortar	<u>Dry Bulk density</u> 1) 1540 kg/m ³ 2) 1490 kg/m ³ 3) 1470 kg/m ³ Mean: (1500 ± 9*) kg/m ³ - nearest 10 kg/m ³

Note:

- 1) Testing period – 1st November 2022 to 22nd December 2022
- 2) Where the reported uncertainty is calculated using a coverage factor $k=2$, which gives a level of confidence of approximately 95%.
- 3) *Denotes measurement uncertainty

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TEST RESULTS:

Product : TECHNOBOND 380 Grey
 Mix ratio : 20 % of water
 Method of test : BS EN 1015-11: 1999,
 Methods of test for mortar for masonry – Part 11: Determination of flexural and compressive strength of hardened mortar

NO.	TYPE OF TEST METHOD	TEST RESULTS
1.	Determination of Flexural & Compressive Strength - 28 days	<p><u>Flexural Strength</u> 1) 5.4 N/mm² 2) 5.8 N/mm² 3) 5.9 N/mm² Mean: (5.7 ± 0.023*) N/mm²</p> <p><u>Compressive Strength</u> 1) 21.7 N/mm² 2) 22.8 N/mm² 3) 23.0 N/mm² 4) 22.6 N/mm² 5) 24.5 N/mm² 6) 22.4 N/mm² Mean: (22.8 ± 0.23*) N/mm²</p>

Note:

- 1) Testing period – 1st November 2022 to 22nd December 2022
- 2) The sample was cured in Temperature & Humidity Chamber, (20 ± 2) °C / (65 ± 5) % RH.
- 3) Where the reported uncertainty is calculated using a coverage factor $k=2$, which gives a level of confidence of approximately 95%.
- 4) *Denotes measurement uncertainty

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TEST RESULTS:

Product : TECHNOBOND 380 Grey
 Mix ratio : 20 % of water
 Method of test : BS EN 1015-12: 2016,
 Methods of test for mortar for masonry – Part 12: Determination of adhesive strength of hardened rendering and plastering mortars on substrates

NO.	TYPE OF TEST METHOD	TEST RESULTS
1.	Determination of Adhesion Strength by Pull-Off using Portable Adhesion Tester - 28 days	<u>Adhesion Strength</u> 1) 1.92 N/mm ² 2) 1.82 N/mm ² 3) 1.77 N/mm ² 4) 1.83 N/mm ² 5) 1.81 N/mm ² Mean: (1.85 ± 0.025*) N/mm ² <u>Fracture pattern</u> Fracture pattern a: Adhesion fracture – Fracture at the interface between mortar and substrate

Note:

- 1) Testing period – 1st November 2022 to 22nd December 2022
- 2) Where the reported uncertainty is calculated using a coverage factor $k=2$, which gives a level of confidence of approximately 95%.
- 3) *Denotes measurement uncertainty

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1. A Test Report will be issued in respect of Testing Services conducted and shall relate only to the sample actually tested. SIRIM QAS International makes no warranty whatsoever and the Applicant shall not represent in any manner that any duplication or mass production of the Product is same as the sample actually tested or that SIRIM QAS International has tested any of the duplicated or mass-produced Product. Measurement uncertainty shall be included in the Test Report when there is no statement of conformity required. When a statement of conformity to a specification or standard is applied, the Simple Acceptance Rule is used. Unless otherwise stated, the Acceptance Rule with Guard Band is used.
2. The Test Report shall not be misused, amended, changed, varied or modified in any manner whatsoever by the Applicant or otherwise.
3. If the Test Report is to be furnished to any third party or to the public, each such Test Report shall be furnished in full, legible and in its entirety.
4. The Test Report shall not be reproduced and shall not in any event be used for any advertising purposes or whatsoever without written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International of No 1, Persiaran Dato' Menteri, Building 8, Section 2, P.O. Box 7035, 40700 Shah Alam, Selangor Darul Ehsan.
5. Customer (Applicant/Manufacture/Factory, etc.) is not permitted to use any SIRIM QAS International, SIRIM or other SIRIM's subsidiaries logo or words on packaging, sample's manual, technical specification, items and products.
6. Subject to consent and written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International, the customer (Applicant/Manufacture/Factory, etc.) may use SIRIM QAS International logo or word on the promotional materials and the Applicant shall only include the phrase, "A sample of this product has been tested by SIRIM QAS International ...(Test Report No) ...(dated) ...(for what test) ...(to which standard)" or such similar words which stress that only the sample was actually tested. This phrase shall only be used for the purpose of product advertisement or product promotion (eg; brochures/flyers/official website). For avoidance of doubt, the statement shall not be used on the sample, packaging of the sample, items and products.
7. In the event there is an investigation from a Government Regulatory Agency concerning the Applicant's Test Report, SIRIM QAS International may disclose the information pertaining to the Test Report for purposes of such investigation.
8. Further or in the alternative, it is strictly forbidden unless with prior written approval from the Chief Executive Officer of SIRIM QAS International, to represent in any manner whatsoever that SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries has endorsed, approved or validated the Product of the Applicant in any manner whatsoever.
9. In the event the Applicant is found in breach of this provision, SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries without prejudice to any other rights and remedies may take whatever action necessary including but not limited to:
 - a) Informing and placing a notice in the media;
 - b) Obtaining an injunction from Court (cost on a solicitor-client basis to be borne by the Applicant);
 - c) Refusing to accept any further Product for Testing Services from the Applicant or whosoever related to the Applicant, whether subsidiary or otherwise;
 - d) Instructing the Applicant to withdraw and recall the advertisement, statement or document in question and advertise a clarification and apology to SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries twice in a national publication of SIRIM QAS International's choice at the Applicant's sole cost; and
 - e) Informing or lodging a report pertaining the Applicant's Test Report with the relevant authorities.
10. SIRIM QAS International is committed in supporting an environmentally-friendly business practices by reducing paper consumption, therefore we do not issue any hard copy of Test Report to the Applicant. However, additional certified true copy(ies) or softcopy of the Test Report may be issued upon request by the Applicant upon payment of the relevant fee. The certified true copy(ies) or softcopy of test report shall only be given for test report issued not more than three (3) years from the date of issuance.
11. Issuance of Amendment Report due to the following reasons are chargeable to the Applicant :
 - a) Changes in details of the Applicant name and/or address;
 - b) Changes in details of the Manufacturer's name and/or address;
 - c) Changes in details of the Factory location name and/or address;
 - d) Changes in details of the model and/or type designation
12. However, issuance of Supplementary Report due to the following reasons are FOC :
 - a) Misprints and typo errors;
 - b) Missing technical information as agreed in PP1 form;
 - c) Test data not reported;
 - d) Mistake in reporting of test data
13. Corrections to report shall only be allowed if the date of issuance of the original report has not exceeded 6 months and shall be limited to a maximum 3 times, after either case whichever occurs earlier, an Amendment or a Supplementary Report shall not be issued.