SIRIM QAS International Sdn. Bhd.
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TEST REPORT

REPORT NO : 2023CB0625	PAGE : 1 OF 5

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Applicant	: VIVO RAISER SDN BHD No. 9 & 10, Jalan PKNK 3/7, Kawasan Perusahaan Sungai Petani, 08000 Sungai Petani, Kedah, Malaysia
Manufacturer	: same as above
Product	: Technobond Tile Adhesive 168
Reference Standard / Method of Test	: 1) BS EN 12004-1: 2017 Adhesives for ceramic tiles. Requirements, assessment, and verification of constancy of performance, classification and marking. 2) BS EN 12004-2: 2017 Adhesives for ceramic tiles. Test methods
Description of sample	: One (1) bag of 15 kg Technobond Tile Adhesive 168 was received for testing. Brand: Technobond Product Description: C1 GRADE TILE ADHESIVE
Date Received of Complete Application	: 04 July 2023
Job No.	: J20231430382
Description of Test Results	: The test result for the submitted test samples as described in this test report complied with the requirements of the above reference standard except Clause 4.1 (c) Tensile adhesion strength after heat aging.
Issued Date	: 04 October 2023

Approved Signatory;

.....
. (NUR AIN BINTI KHAIRUDDIN)
Testing Executive

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

SIRIM QAS International Sdn. Bhd. CIVIL & CONSTRUCTION SECTION

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TEST RESULTS:

Product : Technobond Tile Adhesive 168
Mix ratio : 25 % of water
Method of test : 1) BS EN 12004-1: 2017
Adhesive for ceramic tiles. Requirements, assessment, and verification of constancy of performance, classification and marking.
2) BS EN 12004-2:2017
Adhesives for ceramic tiles. Test methods
Clause 8.3: Determination of tensile adhesion strength for cementitious adhesives (C)
Clause 8.3.3.2: Initial tensile adhesion strength
Clause 8.3.3.3: Tensile adhesion strength after water immersion

CLAUSE	REQUIREMENTS	TEST RESULT	REMARK*
4.1	Cementitious adhesives (C) **Normal Setting Adhesives C1** Additional Characteristic: - a) Initial tensile adhesion strength: ≥ 0.5 N/mm^2	1) 1.58 N/mm^2 2) 1.38 N/mm^2 3) 1.23 N/mm^2 4) 1.14 N/mm^2 5) 1.37 N/mm^2 Mean: 1.34 N/mm^2	Pass
	b) Tensile adhesion strength after water immersion: ≥ 0.5 N/mm^2	1) 0.86 N/mm^2 2) 0.87 N/mm^2 3) 0.84 N/mm^2 4) 0.85 N/mm^2 5) 0.83 N/mm^2 Mean: 0.85 N/mm^2	Pass

Note:
*1) *Simple acceptance rule is used for the conformity statement. The level of risk regarding the Probability of False Accept is up to 50% according to ILAC G8:09*
2) Testing period – 27th July 2023 to 21st September 2023
3)Testing location – Civil & Construction Section, Building 22, SIRIM Complex, Shah Alam, Selangor

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Product : Technobond Tile Adhesive 168
Mix ratio : 25 % of water
Method of test : 1) BS EN 12004-1: 2017
Adhesives for ceramic tiles. Requirement, assessment, and verification of constancy of performance, classification and marking
2) BS EN 12004-2:2017
Adhesives for ceramic tiles. Test methods
Clause 8.3: Determination of tensile adhesion strength for cementitious adhesives (C)
Clause 8.3.3.4: Tensile adhesion strength after heat aging
Clause 8.3.3.5: Tensile adhesion strength after freeze and thaw cycle

CLAUSE	REQUIREMENTS	TEST RESULT	REMARK*
4.1	Cementitious adhesives (C) **Normal Setting Adhesives C1**		
	Additional Characteristic: - c) Tensile adhesion strength after heat aging: ≥ 0.5 N/mm^2	1) 0.59 N/mm^2 2) 0.50 N/mm^2 3) 0.54 N/mm^2 4) 0.54 N/mm^2 5) 0.55 N/mm^2 Mean: 0.54 N/mm^2	Pass
	Additional Characteristic: - d) Tensile adhesion strength after freeze and thaw cycle: ≥ 0.5 N/mm^2	1) 0.64 N/mm^2 2) 0.55 N/mm^2 3) 0.61 N/mm^2 4) 0.57 N/mm^2 5) 0.52 N/mm^2 Mean: 0.58 N/mm^2	Pass

Note:
*1) *Simple acceptance rule is used for the conformity statement. The level of risk regarding the Probability of False Accept is up to 50% according to ILAC G8:09*
2) Testing period – 27th July 2023 to 21st September 2023
3)Testing location – Civil & Construction Section, Building 22, SIRIM Complex, Shah Alam, Selangor

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TEST RESULTS:

Product : Technobond Tile Adhesive 168
Mix ratio : 25 % of water
Method of test : 1) BS EN 12004-1: 2017
Adhesives for ceramic tiles. Requirement, assessment, and verification of constancy of performance, classification and marking
2) BS EN 12004-2:2017
Adhesives for ceramic tiles. Test methods
Clause 8.1: Determination of open time

CLAUSE	REQUIREMENTS	TEST RESULT	REMARK*
4.1	Cementitious adhesives (C) **Normal Setting Adhesives C1** e) Open time: tensile adhesion strength: ≥ 0.5 N/mm2 after not less than 20 min	1) 0.69 N/mm^2 2) 0.53 N/mm^2 3) 0.38 N/mm^2 4) 0.56 N/mm^2 5) 0.46 N/mm^2 Mean: 0.52 N/mm^2	Pass

Note:
*1) *Simple acceptance rule is used for the conformity statement. The level of risk regarding the Probability of False Accept is up to 50% according to ILAC G8:09*
2) Testing period – 27th July 2023 to 21st September 2023
3)Testing location – Civil & Construction Section, Building 22, SIRIM Complex, Shah Alam, Selangor

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CONDITIONS RELATING TO THE USE OF SIRIM QAS INTERNATIONAL TEST REPORT

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. 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.

9. 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.

10. 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

11. 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

12. 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.

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