



SIRIM QAS International Sdn. Bhd.
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TEST REPORT

REPORT NO : 2026CE1045

PAGE : 1 OF 11

Unless otherwise stated, the results shown in this Test Report shall be valid exclusively for the specific sample either provided by the Applicant or sampled by the qualified officer and tested by SIRIM QAS International Sdn. Bhd. In deriving the results of this Test Report, SIRIM QAS International Sdn. Bhd. has relied solely on the sample and data information provided by the Applicant, in accordance with the applicable standards requested by the Applicant in the Application Form. This Test Report shall not be reproduced, except in full, without written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International Sdn. Bhd. Kindly refer to the last page of this Test Report for the 'Conditions Relating to the Use of SIRIM QAS International Sdn. Bhd. Test Report'.

Applicant : SMART PAINT MANUFACTURING SDN. BHD.
No 11 Jalan Indah Gemilang 5,
Taman Perindustrian Gemilang,
81800 Ulu Tiram, Johor, Malaysia

Manufacturer : SMART PAINT MANUFACTURING SDN. BHD.
No 11 Jalan Indah Gemilang 5,
Taman Perindustrian Gemilang,
81800 Ulu Tiram, Johor, Malaysia

Product : Epoxy Granite

Reference Standard / Method of Test : Refer page two (2)

Description of sample/ Description of Test Specimen : Received one (1) set of test samples of Epoxy Granite for testing. The details are described in the next pages.

Disclaimer: All the information stated above has been provided/agreed by the Applicant. SIRIM QAS International Sdn. Bhd. shall not be held responsible for the accuracy, completeness, or validity of the information provided by the Applicant which may affect the validity of the test results. The accuracy and reliability of the test results are contingent upon the integrity and accuracy of the information provided by the Applicant.

Date Received of Complete Application : 28 January 2026

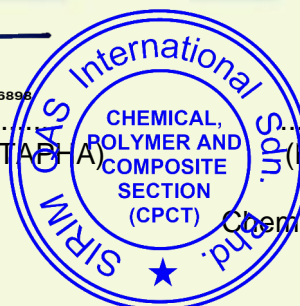
Job No. : J20263670240

Description of Test Results/ Overall Test Result : This test report covers only test clauses as requested by applicant for SIRIM QAS International Sdn. Bhd. The test results of the submitted test sample are described on the next pages of this test report.

Issued Date : 14 April 2026

Approved Signatory;

AMPP (NACE) Basic Coating Inspector CN 116896
IKM/L/3762/11/43/25
.....
(ChM. AHMAD NAJMI BIN MUSTAPHA)
Testing Executive



.....
(DALHA BIN KATNI @ RAHMAT)
Head
Chemical, Polymer and Composite Section
Testing Services Department

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Test Information

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method :

- 1) ASTM D4060-25 Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser
- 2) ASTM C579-23 Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- 3) ASTM C580-23 Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- 4) ASTM E 303: 2022 Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
- 5) ASTM D2794-93(2024) Standard Test Methods for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
- 6) ISO 2812-1:2017 Paints and varnishes — Determination of resistance to liquids Part 1: Immersion in liquids other than water – Method A Single Phase Liquid
- 7) ISO 4624: 2016 – Paint and varnishes – Pull-off test for adhesion
- 8) ASTM D 2486: 2017 Standard Test Methods for Scrub Resistance of Wall Paints

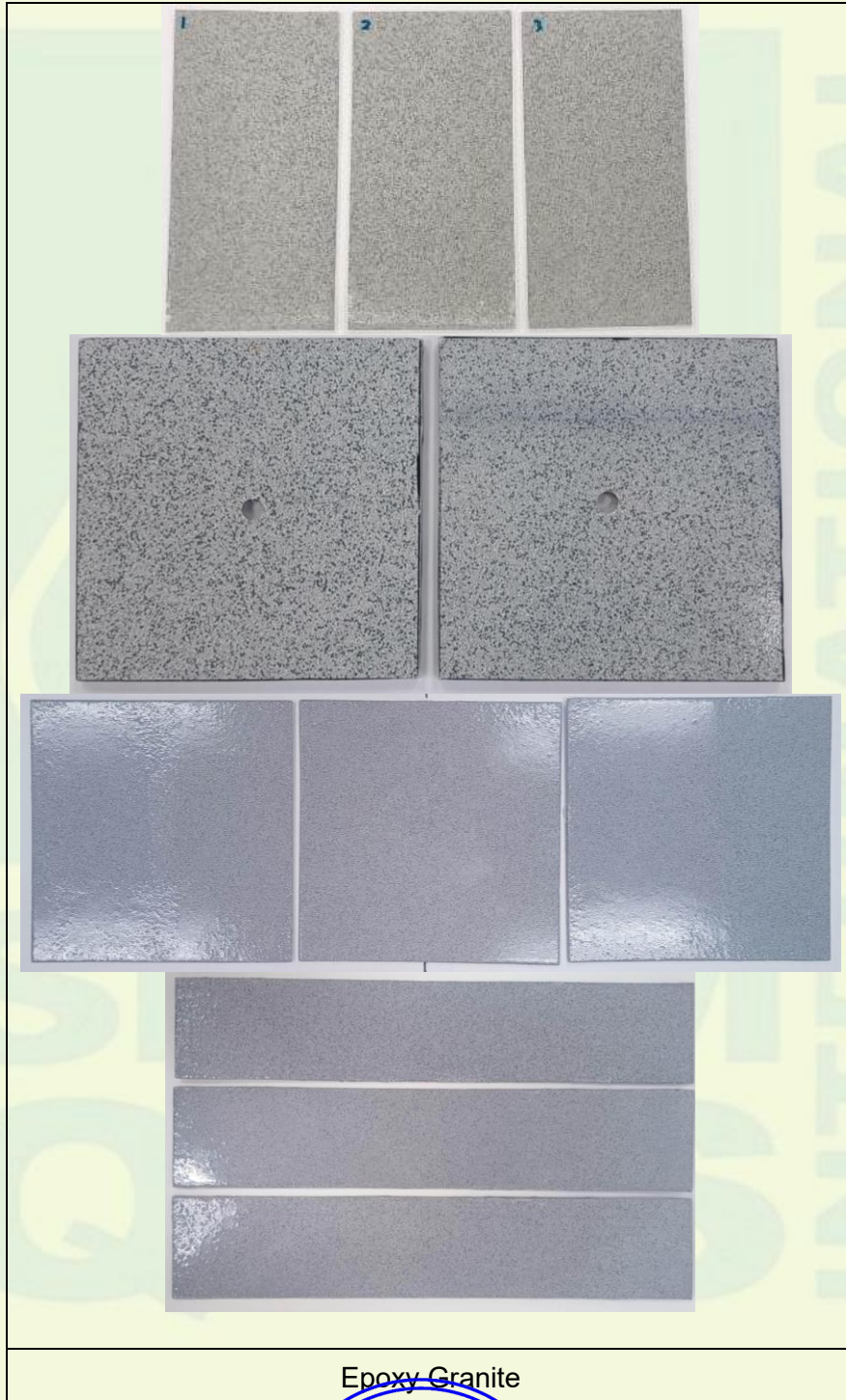
Test Location : Blok 16, Chemical, Polymer and Composite Section, SIRIM QAS International Sdn. Bhd., Section 2, Shah Alam, Selangor, Malaysia.

Testing Duration : 10th February 2026 – 6th March 2026

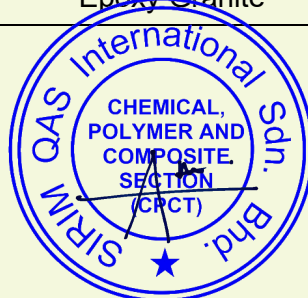


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Samples Received



Epoxy Granite



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method : ASTM D4060-25 Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser

Testing Information:

Load	1000 g	
Abrasive wheel	CS 11	
No.	Type of Test	Results
1.	ASTM D4060 Abrasion resistance	
1.1	After 1000 cycles	
1.11	Weight loss, mg	88.35
1.12	Wear index in mg/1000cycles/1kg	88.35



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

No.	Type of Test	Test Method	Results
2	Compressive Strength, MPa <i>Test parameters:</i> <ul style="list-style-type: none">• <i>Test speed: 1.3 mm/minute</i>• <i>No. of specimens tested: 5 pieces</i>	ASTM C579	61.8
3	Flexural Strength, MPa <i>Test parameters:</i> <ul style="list-style-type: none">• <i>Test speed: 3.5 mm/minute</i>• <i>Span length: 230 mm</i>• <i>No. of specimens tested: 5 pieces</i>	ASTM C580	33.8



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method : ASTM E 303: 2022
Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester

No.	Type of Test	Results, BPN
4	Slip Resistance Test	
1.1	Wet Condition	22.2
1.2	Dry Condition	67.6

Notes:

*BPN – British Pendulum Number

Slider: Hardness 96



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method : ASTM D2794-93(2024) Standard Test Methods for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)

Testing Information:

Diameter of the punch used		12.7 mm
Evaluation on intrusion or extrusion		Intrusion
Substrate thickness and type of metal		1mm (Aluminum)
Conditions of coated panels were conditioned and tested		23.6 °C, 55.6 % Relative Humidity
No.	Type of Test	Results
5.	Impact Test The Kilogram – meters at the Impact Failure End Point (Intrusion)	At 3 Joule (3.077 kilogram – 0.099 meter) impact loading, no cracks observed.



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method : ISO 2812-1:2017 Paints and varnishes — Determination of resistance to liquids Part 1: Immersion in liquids other than water – Method A Single Phase Liquid

Test condition:

Duration of exposure : 24 hours
 Temperature exposure zone : 40°C
 Testing solution : Detergent

No.	Type of Test	Type of Evaluation	Result
6	Resistance to liquid	Intensity of change – Colour (ISO 4628-1)	Rating 0
		Blistering (ISO 4628-2)	Rating 0

ISO 4628-1 – Evaluation of degradation of paint coatings-Designation of intensity, quantity, and size of common type of defect – General principles and rating schemes

Table 3 — Rating scheme for designating the intensity of changes

Rating	Intensity of change
0	unchanged, i.e. no perceptible change
1	very slight, i.e. just perceptible change
2	slight, i.e. clearly perceptible change
3	moderate, i.e. very clearly perceptible change
4	considerable, i.e. pronounced change
5	very marked change



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method : ISO 4624: 2016 – Paint and varnishes – Pull-off test for adhesion

Testing Information:

Surface preparation	<i>Done by applicant</i>
Thermal spray Zn coating application	<i>Done by applicant</i>
Testing Date	30 th January 2022
Type of Adhesive Used	Araldite Epoxy Adhesive (Blue)
Type of substrate	Carbon steel
Type of Instrument Used	Defelsko PosiTest AT-A 20
Dolly diameter, mm	20
Atmospheric condition	25°C, 63% Relative Humidity

No. of Dolly	Pulled-Off Strength, MPa	Results, %				
		A	A/B	B	B/Y	Y
1.	2.59	-	100	-	-	-
2.	2.24	-	100	-	-	-
3.	2.31	-	100	-	-	-
4.	2.55	-	100	-	-	-
5.	3.42	-	100	-	-	-
6.	2.37	-	100	-	-	-
Mean	2.58					

Notes: A: Substrate
B: 1st Coating Layer
Y: Adhesive

A, B, Y: Cohesive Failures
A/B, B/Y: Adhesive Failures



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Test Results

Product : Epoxy Granite

Brand : SMART

Product Description : Epoxy Granite for Flooring System

Test Method : ASTM D 2486: 2017 Standard Test Methods for Scrub Resistance of Wall Paints

No.	Type of Test	Test Method	Result
8	Scrub Resistance	ASTM D 2486 : 2017	No film removal was observed after 1000 cycles



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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 the Testing Services conducted and shall relate only to the sample actually tested by SIRIM QAS International. The results in the Test Report will be based on all the information provided by the Applicant, unless otherwise stated. SIRIM QAS International makes no warranties whatsoever, and the Applicant shall not represent in any manner that any duplication or mass production of the Product is identical to the Sample actually tested, or that SIRIM QAS International has tested any duplicated or mass-produced Product. Measurement uncertainty shall be included in the Test Report when no statement of conformity is required.
2. For quantitative test results (with values), when a statement of conformity to a specification or standard is applied, the Simple Acceptance Rule shall be used. Unless otherwise stated, the Acceptance Rule with Guard Band will be applied, and an additional charge will be incurred accordingly.
3. For qualitative test results (visual observation), when requested by the applicant, a statement of conformity shall be included in the Test Report. If there is no request by the Applicant, a statement of conformity can be included in the Test Report based on SIRIM QAS International Sdn. Bhd.'s discretion.
4. The Applicant shall not at any time misrepresent the content of any Test Report provided by SIRIM QAS International Sdn. Bhd., nor shall the Test Report be misused, amended, changed, varied, or modified in any manner whatsoever by the Applicant or otherwise.
5. The Test Report shall not be reproduced, except in full, without the written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International of No. 1, Block 8, Persiaran Dato' Menteri, Section 2, P.O. Box 7035, 40700 Shah Alam, Selangor Darul Ehsan.
6. The Applicant is not permitted to use any SIRIM QAS International Sdn. Bhd., SIRIM Berhad or other SIRIM subsidiaries logos or words on packaging, sample manuals, technical specifications, items and products.
7. Subject to consent and written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International Sdn. Bhd., the Applicant may use the SIRIM QAS International Sdn. Bhd. logo or word on promotional materials. The Applicant shall only include the phrase, "A sample of this product has been tested by SIRIM QAS International Sdn. Bhd. (Test Report No) ... (dated) ... (for what test) ... (to which standard)", or similar words emphasizing that only the sample was tested. This phrase shall only be used for product advertisements or promotions (e.g.: brochures, flyers, official website). For clarity, the statement shall not be used on the sample, packaging, items or products.
8. In the event there is an investigation from a Government Regulatory Agency concerning the Applicant's Test Report, SIRIM QAS International Sdn. Bhd. may disclose the information pertaining to the Test Report for the purposes of such investigation.
9. In the event that the Applicant is found in breach of this provision, SIRIM QAS International Sdn. Bhd., SIRIM Berhad and/or other SIRIM subsidiaries may, without prejudice to any other rights and remedies, take whatever actions are necessary including but not limited to:
 - a) Informing and placing a notice in the media;
 - b) Obtaining an injunction from the Court (costs on a solicitor-client basis to be borne by the Applicant);
 - c) Refusing to accept any further Products 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 to publish a clarification and apology to SIRIM QAS International, SIRIM and/or other SIRIM 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 to the Applicant's Test Report with the relevant authorities.
10. SIRIM QAS International is committed to supporting environmentally friendly business practices by reducing paper consumption. Therefore, we do not issue any hard copies of the Test Report to the Applicant. However, additional certified true copies or softcopies of the Test Report may be issued upon request by the Applicant, subject to payment of the relevant fee. Certified true copies or softcopies of the Test Report shall only be provided for Test Reports issued not more than **three (3) years** from the date of issuance.
11. The Issuance of an Amendment Report due to the following reasons is chargeable to the Applicant:
 - a) Typo or change¹ in details of the Applicant's name and/or address; or
 - b) Typo or change¹ in details of the Manufacturer's name and/or address; or
 - c) Typo or change¹ in details of the Factory location name and/or address; or
 - d) Typo or change¹ in details of the brand, size, model and/or type designation; or
 - e) Typo in details of the description of sample.Note: ¹Applicable only for electrical and electronic products based on IECCE OD-2020.
12. Any corrections and/or changes to the Report requested by the Applicant shall only be allowed if the date of issuance of the original Test Report has not exceeded six (6) months and shall be limited to a maximum of three (3) times. After either of these conditions is met, no further amendments to the Test Report shall be issued.
13. However, the issuance of a Supplementary Report due to the following reasons is free of charge (FOC):
 - a) Misprints and typographical errors;
 - b) Missing technical information as agreed in the PP1 form;
 - c) Test data not reported; or
 - d) Mistakes in the reporting of test data.