



SHUNDA S-505

WATER-BASED ELASTOMERIC RUBBER WATERPROOF COATING

SHUNDA S-505 is a single-component water-based waterproofing coating specifically designed for exposed roof applications. It is made from rubber emulsion as base material, combined with high-grade resin emulsion, additive, and filler. **SHUNDA S-505** can be applied externally without the need for a finishing layer, suitable for both construction and repair waterproofing works.

1 PRODUCT FEATURES

- Ready to use, easy and simple to apply, applicable for construction project and domestic home-use waterproofing.
- Improved weather resistance, UV resistance, resistance to high temperature fluctuations, reflectivity against sunlight.
- Excellent adhesive strength, forms long-term bonding to various substrate producing a seamless waterproof layer.
- Excellent elasticity with low moisture permeability, effective in resisting substrate shrinkage and deformation cracking.
- Water-based material, non-toxic, environmental-friendly, safe and reliable.

2 APPLICATION SCOPE

- Applicable for waterproofing and moisture-proofing various exposed areas and external facings of buildings.
- Applicable for waterproofing and moisture-proofing new construction and existing repair works of various material surfaces.
- Applicable for waterproofing and moisture-proofing: exposed and concealed roofs, external building envelope applications.



3 PRODUCT HANDLING

- The product is safe to be transported through conventional means with standard practices. The shelf life is 12 months from date of production if stored properly in original, unopened, undamaged, sealed packaging. Store products indoor in dry conditions, protected from weather and direct sunlight, at temperatures between 5°C - 35°C. It is recommended to wear protective gear during use.

4 APPLICATION INSTRUCTIONS

PREPARATION

- Ensure substrate is dry, flat and even surfaced, structurally sound with sufficient strength, repaired of all defects and damages, clean and free from laitance, dirt, loose particle, oil, and other contaminants that may affect adhesion.
- The content of each **SHUNDA S-505** pail contains two pre-packaged liquid components. Pour all the content of each package into a clean container, then stir thoroughly with an electrical mixer until a uniform mixture is formed.
- For application on metal substrate, ensure any rust or damage is fixed and treated with a suitable rust converter prior to application.

APPLICATION

- Building joints, connections, corners, and details shall be treated with a coat of **SHUNDA S-505**, extending outwards of 75 mm to both sides of the joint. Allow coating to cure before proceeding with general application.
- Apply first coat of **SHUNDA S-505** waterproof membrane on to general substrate surface area. The application procedure can be done using method of brush, roller, or spray. Allow surface drying time according to Technical Data below.
- Apply second coat of **SHUNDA S-505** waterproof membrane to general substrate surface area. The direction of coating should intersect vertically and horizontally in between coats. Allow full drying time according to Technical Data below.
- Inspect the works. The coating can be either exposed or installed with finishes according to project specifications.

5 SYSTEM DETAILS

3rd Layer : **SHUNDA S-505** at 1.0 kg/m²

2nd Layer : **SHUNDA S-505** at 1.0 kg/m²

1st Layer : * Optional primer

* according to project specifications

Base Layer : Substrate

Consumption Rate :

1.8 kg/m² ~ 2.0 kg/m² for 1.0 mm thickness, applied at minimum two coats (actual usage may vary depending on site condition and required thickness of the waterproof layer)



PRODUCT DETAILS

SHUNDA S-505 packaging : 5 kg pail / 20 kg pail

SHUNDA S-505 coating color : gray

6 TECHNICAL DATA

- All technical data stated below are based on laboratory tests. Actual measured data may vary due to circumstances beyond control. The user of the product must test the product's suitability for the intended application and purpose.

PHYSICAL PROPERTIES		TEST METHOD	INDEX
Solid content / % ≥		Q/SDKS 107-2022	60
Tensile strength / MPa ≥			2.5
Elongation at break / % ≥			200
Tear strength / (N/mm) ≥			12
Impermeability			0.6 MPa, 30 min, no leakage
Surface drying time / h ≤			8
Full drying time / h ≤			48
Heat treatment (80℃, 168h)	Tensile retention / % ≥		80
	Elongation at break / % ≥		150
Alkali treatment (0.1% NaOH solution, 168h)	Tensile retention / % ≥		60
	Elongation at break / % ≥		150
Acid treatment (2.0 % H ₂ SO ₄ solution, 168h)	Tensile retention / % ≥		60
	Elongation at break / % ≥		150
Weathering treatment (720h)	Tensile retention / % ≥		80
	Elongation at break / % ≥		150



SIRIM QAS International Sdn. Bhd.
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TEST REPORT

REPORT NO : 2024CE2123	PAGE : 1 OF 6
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THIS TEST REPORT IS ISSUED IN SECURED PDF SOFTCOPY

Applicant : SHUNDA POLYURETHANE SDN. BHD.
No. 23, Tingkat Satu,
Perniagaan Seri Impian,
Pusat Perniagaan Mahkota Impian,
14000, Bukit Mertajam, Pulau Pinang, Malaysia

Manufacturer : SHUNDA POLYURETHANE SDN. BHD.
No. 23, Tingkat Satu,
Perniagaan Seri Impian,
Pusat Perniagaan Mahkota Impian,
14000, Bukit Mertajam, Pulau Pinang, Malaysia

Product : SHUNDA S-505 Waterproofing Coating

Reference Standard / Method of Test : Please refer following pages for details

Description of sample : Received one (1) sample of SHUNDA S-505 Waterproofing Coating for testing which was identified on Page No. 2

Date Received of Complete Application : 03 September 2024

Job No. : J20243671740

Description of Test Results : This test report covers only test clauses as requested by Applicant to SIRIM QAS International Sdn. Bhd. The test results for the submitted test sample are described in the next pages of this test report

Issued Date : 26 September 2024

Approved Signatory;

(Ts. MUHAMMAD FAIZ BIN ZAINON)
Testing Engineer



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

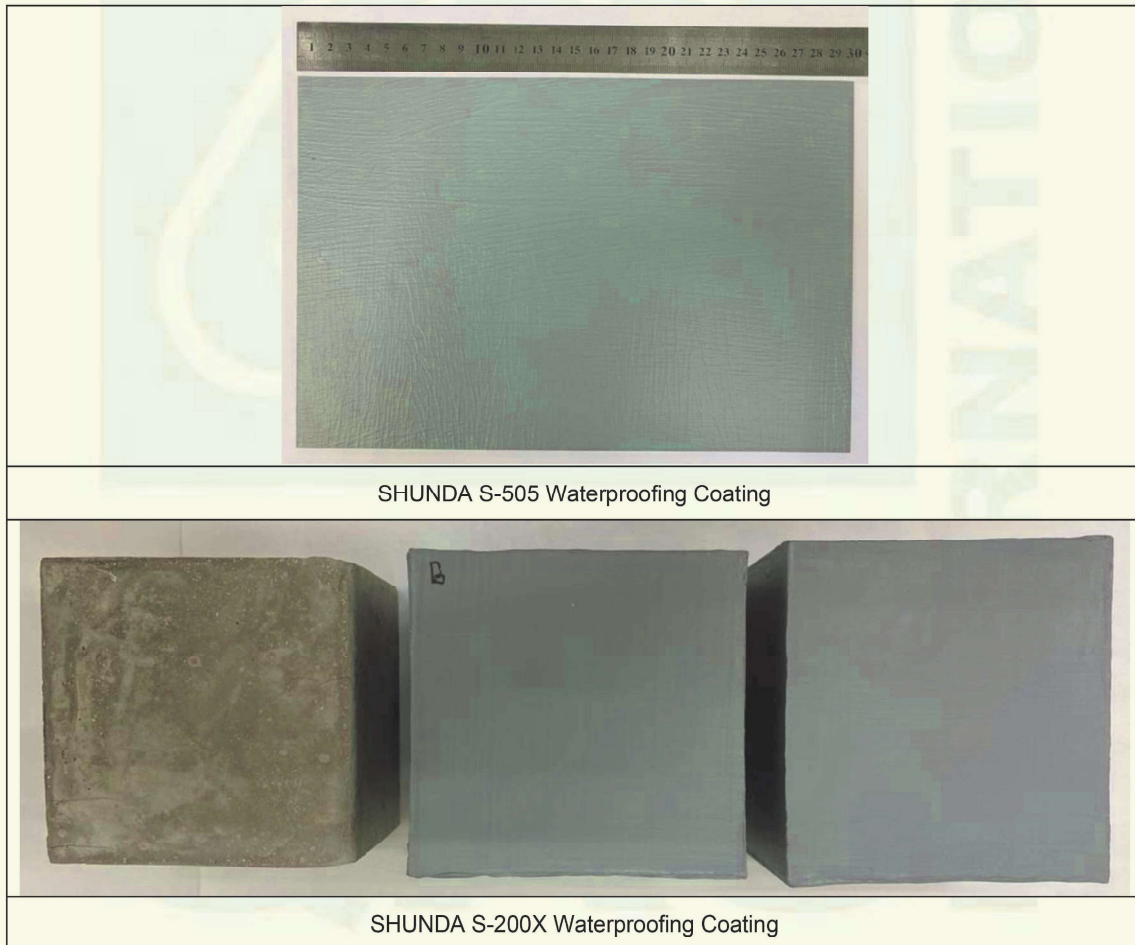
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Description of Sample:

Product : SHUNDA S-505 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based Elastomeric Rubber Waterproof Coating

Test Location : Chemical, Polymer & Composite Section,
Building 16, SIRIM Complex, No. 1 Persiaran Dato' Menteri,
Section 2, 40700 Shah Alam, Selangor, Darul Ehsan, Malaysia

Test Date : 3rd September 2024 – 10th September 2024

Photo of sample received:

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Test Results:

Product : SHUNDA S-505 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based Elastomeric Rubber Waterproof Coating

No.	Type of Tests	Test Method	Results
1.	Tensile Strength, MPa <i>Dumbbell Type : Die C</i> <i>Test Speed : 500mm/min</i> <i>Ave. Thickness : 1.82 mm</i>	ASTM D 412-16 (2021)	Average : 3.10 Median : 3.06
2.	Elongation at Break, % <i>Dumbbell Type : Die C</i> <i>Test Speed : 500mm/min</i> <i>Ave. Thickness : 1.82 mm</i>	ASTM D 412-16 (2021)	Average : 248.0 Median : 250.8
3.	Tear Strength, kN/m <i>Test Specimen : Type C</i> <i>Thickness : 1.50 mm</i>	ASTM D 624-00(2020)	32.2

Note:

- 1) The Tensile Strength and Elongation at Break test was conducted on Vertical Direction as described in Appendix
- 2) 1 MPa = 1 N/mm²



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Test Results:

Product : SHUNDA S-505 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based Elastomeric Rubber Waterproof Coating

Test Method : BS 1881-122:2011 - Testing Concrete. Method for Determination of Water Absorption

Test Conditions:

- 1) Drying in Oven : 72 ± 2 hours at 105 ± 5°C
2) Duration of Immersion : 30 ± 0.5 minutes
3) Sample Dimension : 100mm x 100mm x 100mm

No.	Product	Results	
		Measured Absorption, %	Corrected Absorption*, %
1.	SHUNDA S-505 Waterproofing Coating (Mix with Concrete Cube)	0.06	0.09
2.	Control (Concrete Cube without SHUNDA S-505 Waterproofing Coating)	11.25	14.97

Notes:

* Corrected Absorption = Measured Absorption x Correction Factor

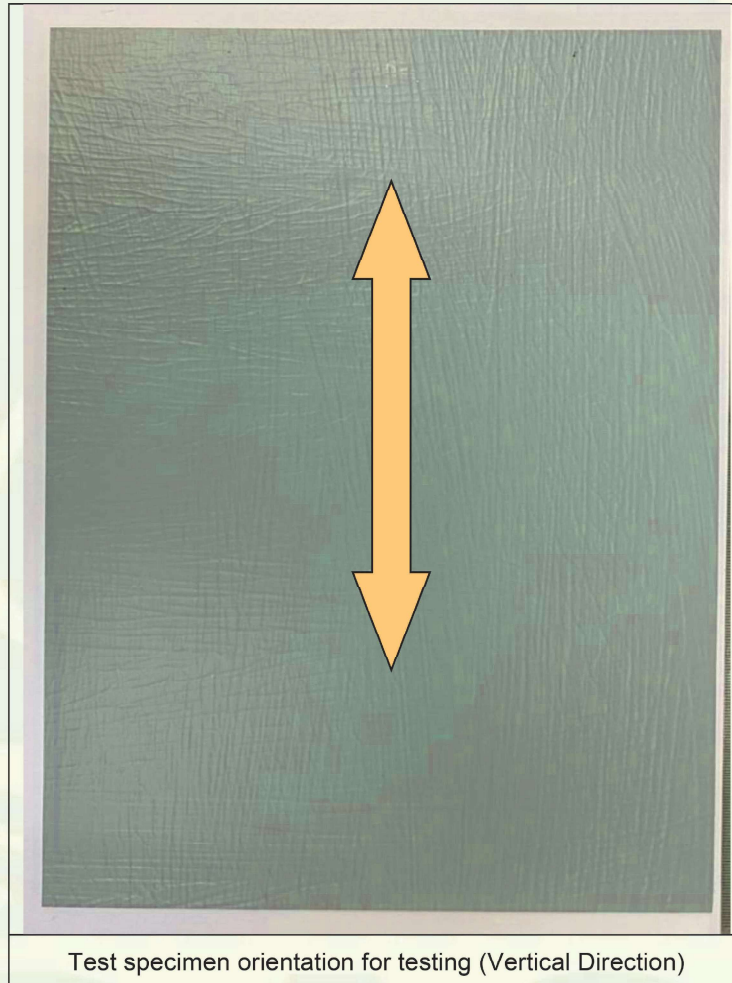
Correction Factor = Volume (mm³) ÷ [Surface Area (mm²) × 12.5]



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APPENDIX

Product : SHUNDA S-505 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based Elastomeric Rubber Waterproof Coating



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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. 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 is used, and additional charge will be incurred accordingly.
3. For qualitative test results (visual observation), when requested by applicant, a statement of conformity in the Test Report shall be reported. Should there is no request by applicant, a statement of conformity in the Test Report can be reported based on our discretion.
4. The Test Report shall not be misused, amended, changed, varied or modified in any manner whatsoever by the Applicant or otherwise.
5. 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.
6. 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.
7. 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.
8. 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; brochure/flyers/official website). For avoidance of doubt, the statement shall not be used on the sample, packaging of the sample, items and products.
9. 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.
10. 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.
11. 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.
12. 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
13. 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
14. 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.