



SHUNDA S-100

WATER-BASED PU BITUMINOUS WATERPROOF COATING

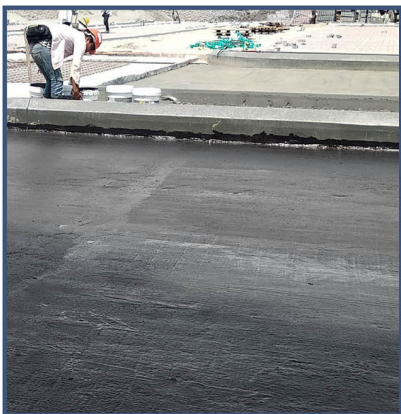
SHUNDA S-100 is a single-component water-based waterproofing coating. **SHUNDA S-100** is based on a newly developed polymer combined with asphalt, modified and emulsified to form a tough and elastomeric waterproof membrane. It is designed for use on horizontal and vertical surfaces with the installation of a protective screed, render, or finish.

1 PRODUCT FEATURES

- Quick and easy application process, single-component that is pre-packaged and ready to use.
- Excellent elasticity that is resistant to common acid and alkali, resistant to aging and weathering.
- Excellent compatibility with bituminous waterproofing sheet membrane to form a composite system.
- Water-based product that is environmental-friendly, safe, and reliable, provides long service life.

2 APPLICATION SCOPE

- Applicable for waterproofing roofs and underground structures of various materials, with the installation of a finishing layer.
- Applicable in conjunction with bituminous waterproofing sheet membrane as a moisture-proof layer in a composite system.
- Applicable as a substrate modifier primer for the installation of bituminous waterproofing sheet membrane.
- Can be directly applied to various concrete surfaces and piping installation as a protective anti-corrosion barrier.



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.
- Prior to application of **SHUNDA S-100**, prime the substrate layer with SHUNDA SP-007 substrate modifier primer for surface treatment and improved adhesion. Refer to SHUNDA SP-007 Product Catalog for instructions.
- Ensure the applied area is well ventilated during application. The recommended ambient temperature for application is 5 °C – 35 °C.

APPLICATION

- Building joints, connections, corners, and details shall be treated with a coat of **SHUNDA S-100**, 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-100** 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-100** 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. After that, the coating shall be laid with a protective layer or installed with an equivalent finish.

5 SYSTEM DETAILS

3rd Layer : **SHUNDA S-100** at 1.1 kg/m²

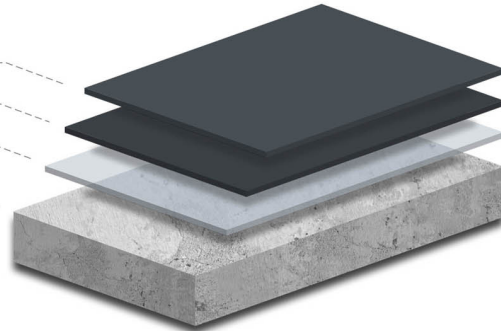
2nd Layer : **SHUNDA S-100** at 1.1 kg/m²

1st Layer : **SHUNDA SP-007**

Base Layer : Substrate

Consumption Rate :

2.0 kg/m² ~ 2.2 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

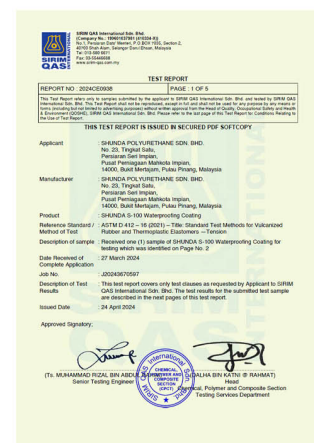
- **SHUNDA S-100** packaging : 20 kg pail

- **SHUNDA S-100** coating color : dark 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
Adhesive strength / MPa ≥		JC/T 408-2005	0.30
Impermeability			0.1MPa, 30 min, no leakage
Heat resistance			80±2℃ no sliding, flowing, dripping
Surface drying time / h ≤			8
Full drying time / h ≤			24
Low temperature flexibility / °C ≥	Standard condition		-15
	Alkali treatment		-10
	Heat treatment		-10
	UV Treatment		-10
Elongation at break after treatment / % ≥	Standard condition		600
	Alkali treatment	600	
	Heat treatment	600	
	UV Treatment	600	
Tensile strength / MPa		ASTM D412-16	0.36
Elongation at break / %		(SIRIM test report)	2620





SIRIM QAS International Sdn. Bhd.
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TEST REPORT

REPORT NO : 2024CE0938	PAGE : 1 OF 5
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THIS TEST REPORT IS ISSUED IN SECURED PDF SOFTCOPY

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

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

Product : SHUNDA S-100 Waterproofing Coating

Reference Standard / Method of Test : ASTM D 412 – 16 (2021) – Title: Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers —Tension

Description of sample : Received one (1) sample of SHUNDA S-100 Waterproofing Coating for testing which was identified on Page No. 2

Date Received of Complete Application : 27 March 2024

Job No. : J20243670597

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 : 24 April 2024

Approved Signatory;

(Ts. MUHAMMAD RIZAL BIN ABDUL RAHMAN)
Senior 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-100 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based PU Bituminous 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 : 23rd April 2024

Photo of sample received:

SHUNDA S-100 Waterproofing Coating



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Test Results:

Product : SHUNDA S-100 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based PU Bituminous 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 : 2.84 mm</i>	ASTM D 412-16 (2021)	Average : 0.36 Median : 0.34
2.	Elongation at Break, % <i>Dumbbell Type : Die C</i> <i>Test Speed : 500mm/min</i> <i>Ave. Thickness : 2.84 mm</i>	ASTM D 412-16 (2021)	Average : 2620 Median : 2430

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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APPENDIX

Product : SHUNDA S-100 Waterproofing Coating
Brand : SHUNDA
Product Description : Water-based PU Bituminous Waterproof Coating



Test specimen orientation for testing (Vertical Direction)



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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.
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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.
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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.