

APPROVAL REPORT

Project No: PR469350
Class: 4482
Product Name: AllShield Blue
Name of Listing Company: AllShield Coatings BV
Address of Listing Company: Hoogenveeneweg 29
Nieuwerkerk aan den IJssel 2913 LV
Netherlands
Customer ID: 279759-1
Customer website: <http://www.allshieldcoatings.com>

Prepared by

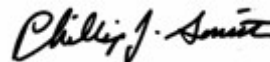


Scott MacGovern
Engineer

Reviewed by



Joanna Blaney
Technical Team Manager, Materials



Phillip J. Smith
VP, Manager of Materials

6 February 2025

Date of Approval

1 INTRODUCTION

1.1 AllShield Coatings BV requested Approval of their AllShield Blue coating to determine if it meets the Approval requirements of the standard listed in Section 1.3.

1.2 This report may be freely reproduced only in its entirety and without modification.

1.3 Standard

Title	Number	Issue Date
Examination Standard for Roof Maintenance Coatings	4482	October, 2021

1.4 Listing

The product will appear in RoofNav, an on-line resource of FM Approvals, as follows:

The AllShield Blue maintenance coating system consists of AllShield Blue Part A and AllShield Blue Part B. Part A and Part B are mixed in a 1:1 ratio prior to being applied to the roofing membrane. The coating is applied by roller, brush or spray.

The application of AllShield Blue is as follows:

AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a total rate of 6.0 kg/m² (1.2 lb/ft²):

Top Coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m² (0.6 lb/ft²).

Scrim: 225 g/m² (0.05 lb/ft²) glass reinforcement embedded into wet base coat

Base Coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m² (0.6 lb/ft²).

Ratings:

Approved as an optional coating to existing FM Approved substrates as follows:

Substrate: Existing FM Approved PVC roof cover

ASTM E108 Rating: Meets rating of existing roof up to a maximum of 5 in 12, Class A.

Substrate: Existing FM Approved TPO roof cover

ASTM E108 Rating: Meets rating of existing roof up to a maximum of 5 in 12, Class A.

Substrate: Existing FM Approved Mod Bit (SBS)

ASTM E108 Rating: Meets rating of existing roof up to a maximum of 1 in 12, Class A.

Application of coating will not increase the fire, wind or hail resistance performance of the existing roof.

2 DESCRIPTION

2.1 The AllShield Blue coating is described as follows:

AllShield Blue is a two-part ceramic maintenance coating consisting of AllShield Blue Part A and AllShield Blue Part B. The two components are mixed in a ratio of 1:1 prior to being applied. The components are packaged separately in buckets of 5L, 10L 20L or 1000L IBCs. The maintenance coating is Approved for use over PVC, TPO and modified bitumen roof cover, see RoofNAV listing for exact ratings and application instructions.

2.2 All other products are as described in RoofNav. Formulations, drawings and specifications are on file at FM Approvals.

3 EXAMINATIONS AND TESTS

3.1 All components, except those in Section 2.1, were produced under the FM Approvals Surveillance Audit program as indicated by FM Approvals labels. All samples were considered to be representative of standard production and were examined and tested as indicated below. Components incorporated into test samples were selected by FM Approvals personnel. Test samples were prepared by, or under the supervision of, FM Approvals personnel. All data is on file at FM Approvals along with other documents and correspondence applicable to this program.

3.2 Several performance requirements and tests required by the Standard have been waived due to previous successful testing. See Table 1 below for details.

Table 1

Standard Number	Section	Test Name	Justification/ Comments
4482	4.1	Combustibility from Above the Roof Deck	Included.
	4.2	Identification Testing (FTIR) – Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis, ASTM E1252	Not included. ¹
	4.3	Identification Testing (TD/GC/MS) – FM Approvals Thermal Desorption Gas Chromatography Mass Spectrometry	Not included. ¹

¹ Identification testing is performed at the sole discretion of FM Approvals

3.3.1 Combustibility From Above the Roof Deck

Six (6) ASTM E108 Spread of Flame Tests were completed with the sample construction and results noted below:

Sample 1 and 2:

Maintenance Coating:	AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a total rate of 6.0 kg/m ² (1.2 lb/ft ²): Top coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²). Scrim: 225 g/m ² (0.05 lb/ft ²) glass reinforcement embedded into wet base coat Base coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²).
Cap Ply:	0.060 in. (1.5 mm) thick Sure-Weld
Base Ply:	Mechanically fastened to the plywood with FM Approved Fasteners
Coverboard:	0.25 in. (6.35 mm) thick DensDeck Prime
Deck:	Plywood

Sample 3 and 4:

Maintenance Coating:	AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a total rate of 6.0 kg/m ² (1.2 lb/ft ²): Top coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²). Scrim: 225 g/m ² (0.05 lb/ft ²) glass reinforcement embedded into wet base coat Base coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²).
Roof Cover:	0.080 in. (2.0 mm) thick Sure-Flex PVC
Roof Cover Securement:	Mechanically fastened to the plywood with FM Approved Fasteners
Coverboard:	0.25 in. (6.35 mm) thick DensDeck Prime
Deck:	Plywood

Sample 5 and 6:

Maintenance Coating:	AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a total rate of 6.0 kg/m ² (1.2 lb/ft ²): Top coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²). Scrim: 225 g/m ² (0.05 lb/ft ²) glass reinforcement embedded into wet base coat Base coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²).
Cap Ply:	Sopralene Global C3 48 GF, torched
Base Ply:	Soprarock Global SBS 30 TF 1/2, torched
Coverboard:	0.125 in. (3.175 mm) thick Sopraboard, mechanically fastened to the plywood with FM Approved Fasteners
Insulation:	2.36 in. (60 mm) thick Therma TR26
Deck:	Plywood

Results:

Sample No.	Slope	Spread Distance	Rating
1	5.0 / 12	9.0 (229)	A
2	5.0 / 12	0 (0)	A*
3	5.0 / 12	16.0 (406)	A
4	5.0 / 12	15.5 (394)	A*
5	1.0 / 12	6.0 (152)	A
6	1.0 / 12	6.5 (165)	A*

*Confirming Sample

4 MARKING**4.1** Marking on the product or, if not possible due to size, on its packaging or label accompanying the product, shall include the following information:

- name and address of the manufacturer or marking traceable to the manufacturer;
- date of manufacture or code traceable to date of manufacture or lot identification;
- model number, model type and/or product trade name as appropriate.

When hazard warnings are needed, the markings shall be universally recognizable.

4.2 The product trade name, model number or model type identification shall correspond with RoofNav, the manufacturer's catalog designation and shall uniquely identify the product as FM Approved. The manufacturer shall not place this trade name or model number identification on any other product unless covered by a separate agreement with FM Approvals.**4.3** The Approval Mark shall be displayed visibly and permanently on the product and/or packaging as appropriate. The manufacturer shall not use this Mark on any other product unless such product is covered by a separate FM Approvals Approval Report.

- 4.4** Markings denoting Approval by FM Approvals shall be applied by the manufacturer only within and on the premises of manufacturing locations that are under the FM Approvals Surveillance Audit program.
- 4.5** The manufacturer agrees that use of the FM Approvals name or Approval Mark is subject to the conditions and limitations of the Approval by FM Approvals. Such conditions and limitations must be included in all references to Approval by FM Approvals.

5 SURVEILLANCE AUDIT

The manufacturing facilities at the following location(s) shall be visited on a routine basis. The facility processes and quality control procedures in place have been determined to be satisfactory to manufacture products identical to that tested and Approved. An FM Approved Products/Specification Tested Revision Request Form shall be submitted to FM Approvals for requesting to manufacture products at any additional or alternate manufacturing facilities which are not listed below.

Audit Location(s)

AllShield Coatings BV
Hoogenveenweg 29
Nieuwerkerk aan den IJssel 2913 LV
Netherlands

6 MANUFACTURER'S RESPONSIBILITIES

- 6.1** The manufacturer shall notify FM Approvals of any planned change in the Approved products, prior to general sale or distribution, using the FM Approved Products/Specification Tested Revision Request Form. No changes of any nature shall be made unless notice of the proposed change has been given and written authorization obtained from FM Approvals.
- 6.2** To ensure compliance with his procedures in the field, the manufacturer shall supply to the installer such necessary instruction or assistance required to produce the desired performance achieved in the tests.
- 6.3** In accordance with the Master Agreement, the manufacturer shall make full and immediate disclosure to FM Approvals of all information concerning any defect in, or potential hazard of, the product or service manufactured or provided by the Customer which is Approved by, or being examined by, FM Approvals. The manufacturer shall make all necessary arrangements for the investigation of complaints / anomalies applicable to this approval and shall keep records of all complaints / anomalies including actions taken.

7 DOCUMENTATION

The following document describes the AllShield Blue coating and is on file at FM Approvals.

Document Title	Issue Date
Surveillance Audit Manual	February 2025

8 CONCLUSIONS

- 8.1** Test results from this program indicate that the submitted products as evaluated, meet the requirements of the FM Approvals Standard listed in section 1.3 when installed as follows:

AllShield Blue coating	
Maintenance Coating:	AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a total rate of 6.0 kg/m ² (1.2 lb/ft ²): Top Coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²). Scrim: 225 g/m ² (0.05 lb/ft ²) glass reinforcement embedded into wet base coat Base Coat: AllShield Blue (Part A and Part B mixed in a 1:1 ratio) applied at a rate of 3.0 kg/m ² (0.6 lb/ft ²).
ASTM E-108 Ratings	
Existing FM Approved TPO pr PVC roof cover	Maximum Class A @ 5 in 12. (Not to exceed the ASTM E-108 rating of the underlying Approved roof covering system.
Existing FM Approved Mod Bit (SBS) roof cover	Maximum Class A @ 1 in 12. (Not to exceed the ASTM E-108 rating of the underlying Approved roof covering system.

- 8.2** Tests show that the tested roof constructions in and of themselves would not create a need for automatic sprinklers.
- 8.3** Since a duly signed Master Agreement is on file for this customer, Approval is effective as of the date of this report.
- 8.4** Continued Approval will depend upon satisfactory field experience and periodic Facilities and Procedures Audits.

PROJECT DATA RECORD: PR469350

ORIGINAL TEST DATA: None