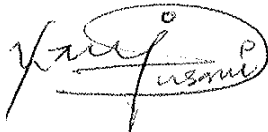


APPROVAL REPORT

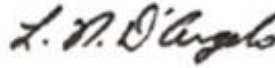
Project No: 3046695
Class: 4470
Product Name: Approval of Tritoflex as a Liquid Applied Roof Cover in FM Approved Class 1 Roof Assemblies
Name of Listing Company: Triton Inc
Address of Listing Company: 250 33rd Street Drive SE
Cedar Rapids IA 52403
United States
Customer ID: 141005-1
Customer website: <http://www.tritonwp.com/>

Prepared by

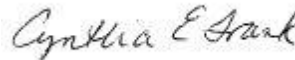


Olabanji Odusami
Engineer

Reviewed by



Leonard D'Angelo
Technical Team Manager



Cynthia Frank
Group Manager
Materials

6/7/2013

Date of Approval

1 INTRODUCTION

1.1 Triton Inc requested Approval of their Tritoflex liquid applied roof coating to determine if it meets the Approval requirements of the standard(s) listed in Section 1.3.

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

1.3 Standards

| Title | Number | Issue Date |
|---|--------|------------|
| Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction | 4470 | 6/2012 |

1.4 Listing

The products and assemblies will be listed in RoofNav, an on-line resource of FM Approvals. Formulations, drawings and specifications are on file at FM Approvals.

2 DESCRIPTION

2.1 Tritoflex is described as follows: Tritoflex is a water-based, fast-setting liquid rubber. It can be spray-applied up to a thickness of 60 mils (1.5 mm) at a rate of 5 gal./sq. (2 L/m²).

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 the one on 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

| FM Standard 4470 Performance Requirement | Original Project ID(s) |
|--|------------------------|
| Combustibility From Above the Roof Deck | Included |
| Combustibility From Below the Roof Deck | Waived ¹ |
| Hail Damage Resistance Test | Included |
| Water Leakage Resistance Test | Included |

| | |
|------------------------------------|---------------------|
| Foot Traffic Resistance Test | Included |
| Susceptibility to Heat Damage Test | Waived ¹ |
| Corrosion Resistance Test | Waived ² |
| Wind Uplift Resistance | Included |

¹ Not required; structural concrete deck only.

² Not required; fasteners were not utilized in this program

4 MARKING

- 4.1 The manufacturer shall mark each product and/or packaging with the manufacturer's name and product trade name. In addition, product and/or packaging must be marked with the Approval Mark of FM Approvals.
- 4.2 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.
- 4.3 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 REMARKS

- 5.1 The securement of the roof system must be enhanced at the building corners and perimeter as outlined in FM Global Property Loss Prevention Data Sheet 1-29.
- 5.2 The roof cover must be installed using a roof perimeter flashing system Approved by FM Approvals. See RoofNav.

6 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. A Form 797 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)

250 33rd Street Drive SE
 Cedar Rapids, IA 52403
 United States

7 MANUFACTURER'S RESPONSIBILITIES

- 7.1** The manufacturer shall notify FM Approvals of any planned change in the Approved products, prior to general sale or distribution, using Form 797, Approved Product Revision Report. No changes of any nature shall be made unless notice of the proposed change has been given and written authorization obtained from FM Approvals.
- 7.2** 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.

8 DOCUMENTATION

The following document describes the Tritoflex and is on file at FM Approvals.

| Document Title | Issue Date |
|---------------------------|----------------|
| Surveillance Audit Manual | 12 March, 2013 |

9 CONCLUSIONS

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

| | |
|--------------------|---|
| Roof Cover: | Tritoflex |
| Application: | Mix Tritoflex and accelerator at a ratio of 10 to 1 and spray-applied at a rate of 5 gal./sq. (2 L/m ²) to a thickness of 60 mils (1.5 mm). |
| Deck: | Structural Concrete |
| Hail Rating: | Severe Hail (SH) |
| ASTM E-108 Rating: | Class A at slope of 2 in 12 and Class B at slope of 5 in 12 |

- 9.1.1** Deck: Structural Concrete (New). Tritoflex liquid-applied roof cover spray-applied at a rate of 5 gal./sq. (2 L/m²) to a thickness of 60 mils (1.5 mm). Meets Class 1-990 windstorm classification.
- 9.1.2** Deck: Structural Concrete (Recover). Existing granular surface, asphalt-adhered modified bitumen or built-up roofs. Tritoflex liquid-applied roof cover spray-applied at a rate of 5 gal./sq. (2 L/m²) to a thickness of 60 mils (1.5 mm). Meets Class 1-210 windstorm classification.
- 9.2** Tests show that the tested roof constructions in and of themselves would not create a need for automatic sprinklers.
- 9.3** Since a duly signed Master Agreement is on file for this customer, Approval is effective as of the date of this report.

- 9.4** Continued Approval will depend upon satisfactory field experience and periodic Facilities and Procedures Audits.

PROJECT DATA RECORD: 3046695

ATTACHMENTS: None

ORIGINAL TEST DATA None