

Issue Date: 05-23-2023
Revision Date: 02-23-2024
Renewal Date: 05-31-2024

DIVISION: 07 00 00 – Thermal and Moisture Protection
Section: 07 56 00 Fluid-Applied Roofing

REPORT HOLDER:
Liquiform Technologies Inc.
9757 7th Street, Suite 803
Rancho Cucamonga, CA 91730
888-440-3224
www.weatherweld.com

REPORT SUBJECT:
WeatherWeld Roofing Systems and Coatings

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021 and 2018 *International Building Code*® (IBC)
- 2021 and 2018 *International Residential Code*® (IRC)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ.

1.2 The Liquiform coatings recognized in this report have been evaluated for the following properties (see Table 1):

- Physical properties
- Wind resistance
- Impact resistance
- Fire classification

1.3 The WeatherWeld Roof System and Coatings recognized in this report have been evaluated for the following uses (see Table 1):

- Class A roof assemblies

2.0 STATEMENT OF COMPLIANCE

The WeatherWeld Roof System and Coatings recognized in this report comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 WeatherWeld Roofing System: The WeatherWeld Roof System serves as a roof coating that can be applied over pre-existing roof surfaces or incorporated into new roofing assemblies. WeatherWeld is composed of asphalt emulsion blended with fiberglass. Acrylic coatings may be installed over WeatherWeld.

3.2 WeatherWeld Asphalt Emulsion: WeatherWeld Asphalt Emulsion is a cold-applied coating, is supplied in pails, 275-gallon containers, and bulk quantities supplied in tankers up to 5000 gallons. It is also supplied in pails premixed with fiberglass roving. The Emulsion has a shelf life of 12 months.

3.3 Acrylic Roof Coating: The Acrylic Base Coat is a one-component, water-based elastomeric coating designed to facilitate adhesion of surface coatings to asphalt. The Acrylic Top Coat is a one-component water-based elastomeric coating. The coatings are supplied in 5, 55 and 275-gallon containers and have a shelf life of 12 months.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Physical Properties: WeatherWeld Asphalt Emulsion complies with ASTM D1227, Type I, Class II. WeatherWeld Top Coat complies with ASTM D6083.

4.2 Wind Resistance: WeatherWeld, uncovered or covered with Acrylic Roof Coating has an allowable wind resistance as described in Section 5.3.

4.3 Weathering: WeatherWeld, uncovered or covered with Acrylic Roof Coating, demonstrated physical integrity based on 2000 hours of weathering conducted in accordance with ASTM G155, as referenced in IBC Section 1504.7.

4.4 Fire Classification: WeatherWeld, uncovered or covered with Acrylic Roof Coating, has a Class A fire classification, when installed in accordance with this report.





4.5 Impact Resistance: WeatherWeld, uncovered or covered with Acrylic Roof Coating, complies with FM 4470, Resistance to Foot Traffic Test, as referenced in IBC Section 1504.8. WeatherWeld, uncovered, complies with FM 4473, Class 4.

5.0 INSTALLATION

5.1 General: The materials must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

This report recognizes two systems:

- WeatherWeld with no covering
- WeatherWeld covered with Acrylic Base Coat and Acrylic Top Coat

5.2 Application: WeatherWeld Specifications

- [R-16-30-A](#) (Flat Roofs)
- [R-16-30-M-A](#) (Metal Roofs)
- [R-1P-16-45-A](#) (Gravel Surfaced BUR Roofs)
- [NCN-1B-16-30-A](#) (New Roof Over Plywood)
- [NCNN-1B-16-30-A](#) (New Roof Adhered to Substrate)

5.2.1 Substrates: The materials described in this report may be applied to existing roof surfaces such as BUR, TPO or EPDM membranes, or installed as a new roofing assembly with or without insulation. Materials must be installed in accordance with the terms of their listing over either minimum 15/32-inch plywood, concrete, steel roof decks, or directly to metal substrates.

5.2.2 WeatherWeld: The surface of the substrate must be cleaned to remove dirt, grease, and other contaminants. The surface must be smooth, uniform, and free of defects. WeatherWeld Asphalt Emulsion and Fiberglass roving must be mixed thoroughly and applied using a glass chopper spray gun. Application temperature must be minimum 50°F with no rain forecasted within 24 hours. The mixture must be applied at minimum 30 gal./100 ft². The fiberglass roving can be mixed into the Asphalt Emulsion either at the factory or at the jobsite, with 30 gal. of Emulsion mixed evenly with 16 lbs. of fiberglass. The coating must dry completely between coats, typically 6 to 24 hours in hot and dry

weather conditions. Allow 48 hours to dry before application of roof surface coatings.

When applied to TPO membranes, Acrylic BaseCoat must be applied using a roller to achieve full coverage prior to application of the WeatherWeld Asphalt Emulsion.

5.2.3 WeatherWeld with Acrylic Roof Coating: The WeatherWeld Asphalt Emulsion substrate must be clean, even, and uniform. Acrylic Base Coat followed by Acrylic Top Coat are applied at a minimum application rate of 1.5 gal/100 ft² each. Application temperature must be minimum 50°F with no rain forecast within 12 hours. The Acrylic Base Coat must dry before application of the Acrylic Top Coat.

5.3 Wind Resistance: When applied as per Section 5.2, the roofing systems have an allowable wind resistance of 105 psf. The roof deck to which the roofing system is applied must be designed for all applicable wind loads. See Table 2 for calculated wind speeds.

5.4 Fire Classification: When applied as per Section 5.2, the roofing systems have a Class A fire classification when installed over plywood, concrete and steel decks. The roof slope is not limited.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 The WeatherWeld materials recognized in this report are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM D1227, ASTM D6083, ASTM G155, ASTM D2370, UL 1897, FM 4470 (Section 5.5), FM 4473 and ASTM E108.

7.2 Intertek Listing Report "WeatherWeld Roofing Systems and Coatings", on the [Intertek Directory of Building Products](#).





8.0 IDENTIFICATION

The WeatherWeld products are identified with the manufacturer's name (Liquiform Technologies Inc.), the product name, the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0497).



9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.



545 E. Algonquin Road • Arlington Heights • Illinois • 60005
intertek.com/building





TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION	2021 IRC SECTION
Wind resistance	1504.4	R905.1
Physical properties	1504.7 1507.10	R905.9
Impact resistance	1504.8	NA
Fire classification	1505	R902

TABLE 2 – ALLOWABLE WIND SPEEDS

Roof Type	Wind Velocity (mph)	Mean Roof Heigh (ft.) Wind Exposure B, C and D
Gable ($\theta \leq 7^\circ$)	115	≤ 60
	130	≤ 60
	145	≤ 30
Gable ($7^\circ < \theta \leq 20^\circ$)	115	≤ 60
	130	≤ 60
	145	≤ 60
Gable ($20^\circ < \theta \leq 45^\circ$)	115	≤ 60
	130	≤ 60
	145	≤ 60
Hip ($7^\circ < \theta \leq 20^\circ$)	115	≤ 60
	130	≤ 60
	145	≤ 60
Hip ($20^\circ < \theta \leq 45^\circ$)	115	≤ 60
	130	≤ 60
	145	≤ 60

