UL 199J

Outline of Investigation for Fire Testing of Specific Application Sprinklers for Use on Windows

Issue No. 2

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Summary of Topics

This Second Issue of the Outline of Investigation for Fire Testing of Specific Application Sprinklers for Use on Windows, UL 199J, is being issued to provide clarification as to the fire test method used to evaluate specific application sprinklers for use on windows.

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INTRODUCTION

1 Scope

1.1 These requirements cover the fire testing of specific application sprinklers for use on non-operable windows when the sprinklers are installed in accordance with the manufacturer's instructions and the Standard for the Installation of Sprinkler Systems, NFPA 13.

1.2 Sprinklers investigated in accordance with this Outline shall also comply with the applicable requirements in the Standard for Automatic Sprinklers for Fire-Protection Service, UL 199, not including the fire and water distribution tests.

1.3 The requirements described herein are intended to investigate the ability of the sprinklers to provide water on the surface of a window to limit the transmission of heat from a fire to the glazing material and maintain the integrity of the window.

1.4 These sprinklers have not been investigated for use as a substitute for fire protection rated glazing materials investigated in accordance with ANSI/UL 9, Fire Tests of Window Assemblies.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this Outline shall comply with the requirements for that component.

2.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this Outline, or

b) Is superseded by a requirement in this Outline.

2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as temperatures not exceeding specified limits, and shall be used only under those specific conditions.

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3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Undated References

4.1 Any undated reference to a code or standard appearing in the requirements of this Outline shall be interpreted as referring to the latest edition of that code or standard.

PERFORMANCE

5 Fire Tests for Sprinklers Used to Protect Heat Strengthened, Tempered Glazing Materials with Instructions to Keep Combustibles at Least 2 inches (50.8 mm) Away from the Glazing Surface

5.1 Sprinklers intended to protect heat strengthened, tempered glazing materials with instructions to keep combustibles at least 2 inches (50.8 mm) away from glazing surface shall be tested in accordance with ULC/ORD-C263.1-99, Sprinkler Protected Window Systems using the minimum glazing thickness specified in the manufacturer's installation instructions.

Exception: A gas burner arrangement that is different from the arrangement described in ULC/ORD-C263.1-99 shall be permitted to be used to achieve the required temperatures within the room.

6 Fire Tests for Sprinklers Used with a Fire Rated Glazing Material without a Limitation for Keeping Combustibles at Least 2 inches (50.8 mm) Away from the Glazing Surface

6.1 General

6.1.1 In addition to complying with ULC/ORD-C263.1-99 when tested in accordance with 5.1 using a heat strengthened, tempered glazing material, sprinklers intended for use with a fire rated glazing material without a limitation for keeping combustibles at least 2 inches (50.8 mm) away from the glazing surface shall comply with 6.1.2 when tested as described in 6.2.1 – 6.3.3.

6.1.2 When fire tested as described in 6.2.1 – 6.3.3 the glazing material shall not show any visual evidence of cracking or breakage when water is discharged onto the glazing surface that has been subjected to a localized heat source.

6.1.3 The fire rated glazing referenced in 6.1.1 shall have the following characteristics:

a) A fire rated window that demonstrated compliance with ANSI/UL 9, Standard for Fire Tests of Window Assemblies with a minimum 20 minute fire resistance rating and a hose stream rating.

b) The area and height limitations associated with the rating of the glazing referenced in 6.1.3(a) shall not be exceeded.

c) The glazing does not utilize a film on the exterior surfaces.

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