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REPORT

on

RESIDENTIAL SPRINKLERS

Viking Corporation  
Hastings, MI

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## GENERAL

## INTRODUCTION:

This Report describes the investigation of residential sprinklers intended to be installed in accordance with the National Fire Protection Association Standard For Installation of Sprinkler Systems For One- And Two-Family Dwellings And Mobile Homes, NFPA 13D, Installation of Sprinkler Systems In Residential Occupancies Up To Four Stories In Height, NFPA 13R and Installation of Sprinkler Systems, NFPA 13.

## OBJECT:

The object of this investigation was to determine compliance of the residential sprinklers with the Fourth Edition of the Standard For Residential Sprinklers For Fire Protection Service, UL 1626, the Canadian Standard for Automatic Sprinklers ULC/ORD C1626-03, and The Outline of Investigation for Fire Testing of Residential Sprinklers for Use with Smooth, Flat, Sloped Ceilings Having Pitches Not Exceeding 4/12, Subject 1626B.

## PLAN:

The investigation of the residential sprinklers consisted of conducting a design parameter and installation instruction review, construction evaluation and performance testing as described in UL 1626, 4<sup>th</sup> Edition, Subject 1626B, Issue No.1, and the Canadian Standard for Automatic Sprinklers ULC/ORD C1626-03, 1<sup>st</sup> Edition.

## DESCRIPTION

## PRODUCT COVERED:

VK476, flush pendent style sprinkler, discharge coefficient, "K" = 4.9, fusible link heat responsive element, 165°F temperature rated residential type sprinklers.

These sprinklers have a maximum pressure of 175 psig for wet systems only for spacing and flow rates as indicated below:

FOR INSTALLATION UNDER SMOOTH, FLAT CEILINGS							
	SIN	Style	Temperature Rating, °F	Nominal K-Factor	Maximum Sprinkler Spacing, ft.	Minimum Flow, gpm/Sprinkler	Flowing Pressure, psig
USL, CNL	VK476 <sup>A</sup>	Flush Pendent	165	4.9	16 by 16	13	7.0
USL, CNL	VK476 <sup>A</sup>	Flush Pendent	165	4.9	18 by 18	17	12.0
USL, CNL	VK476 <sup>A</sup>	Flush Pendent	165	4.9	20 by 20	21	18.4

A - May be installed in ceilings with beams up to 14 in. deep when installed in accordance with the manufacturer's Installation Instructions.

FOR INSTALLATION UNDER SLOPED CEILINGS 2/12 TO 4/12 (IN./IN.) PITCH TESTED PER SUBJECT 1626B, ISSUE NO. 1							
	SIN	Style	Temperature Rating, °F	Nominal K-Factor	Maximum Sprinkler Spacing, ft.	Minimum Flow, gpm/Sprinkler	Flowing Pressure, psig
USL	VK476	Flush Pendent	165	4.9	20 by 20	24	24.0

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USL - indicates Listing to UL1626.

CNL - indicates Listing to Canadian Standard ULC/ORD-C1626-03.

## GENERAL CHARACTER:

The SIN VK476 flush pendent style residential sprinklers are automatic sprinklers of the fusible link heat responsive element type constructed of a brass body, inlet casing and deflector, stainless steel pin arms, lever, lever bar, polyurethane coated fusible link heat responsive element, button, seat, alignment ring, compression screw, element **cover, and** a Teflon coated Belleville spring washer. The body, element cover, and escutcheon ring may have decorative painted finishes.

## USE:

The residential sprinklers are for use in their intended operating position only in accordance with the National Fire Protection Association Standards For Installation of Sprinkler Systems, NFPA 13D, NFPA 13R, and NFPA 13; and the manufacturer's installation instructions.

## TEST RECORD INDEX

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## CONCLUSION

Samples of the SIN VK476, 4.9 K-Factor Residential Flush Pendent Style Sprinkler covered by this Report have been found to comply with the requirements covering the category and the product is found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the samples investigated by UL and does not signify the product(s) described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the UL Listing Mark on such products which comply with UL's Follow-Up Service Procedure and any other application requirements of Underwriters Laboratories Inc. The Listing Mark of Underwriters Laboratories Inc. on the product, or the UL symbol on the product and the Listing Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Listing and Follow-Up Service.

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