



the standard in safety

Underwriters
Laboratories

File EX3836
09CA39806

March 31, 2010

REPORT

on

RESIDENTIAL SPRINKLERS

Viking Corp
Hastings, MI

Copyright © 2010 Underwriters Laboratories Inc.

Underwriters Laboratories Inc. authorizes the above named company to reproduce this Report provided it is reproduced in its entirety.

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, and the Canadian Standard for Automatic Sprinklers ULC/ORD C1626-03.

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, 4th Edition, and the Canadian Standard for Automatic Sprinklers ULC/ORD C1626-03, 1st Edition.

DESCRIPTION

PRODUCT COVERED:

VK480, concealed horizontal sidewall style sprinkler, discharge coefficient, "K" = 4.0, 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.	Ceiling to Deflector Distance, in.	Minimum Flow, gpm/Sprinkler	Flowing Pressure, psig
USL,CNL	VK480* A	Conc. HSW	165	4.0	12 by 12	4-6	11	7.6
USL,CNL	VK480* A	Conc. HSW	165	4.0	12 by 12	6-12	12	9.0
USL,CNL	VK480* A	Conc. HSW	165	4.0	14 by 14	4-6	13	10.6
USL,CNL	VK480* A	Conc. HSW	165	4.0	14 by 14	6-12	14	12.3
USL,CNL	VK480* A	Conc. HSW	165	4.0	16 by 16	4-12	16	16.0
USL,CNL	VK480* A	Conc. HSW	165	4.0	16 by 18	4-6	17	18.1
USL,CNL	VK480* A	Conc. HSW	165	4.0	16 by 18	6-12	18	20.3

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 VK480 concealed horizontal sidewall style residential sprinklers are automatic sprinklers of the fusible link heat responsive element type constructed of a brass body, seat, deflector ring, halo, flow shaper, lever bar ring, and coverplate assembly, stainless steel deflector pins, compression screw, fusible link levers, and guide pin, polyurethane coated fusible link heat responsive element, and Teflon coated Belleville spring washer. The coverplate 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.

CONCLUSION

Samples of the SIN VK480, 4.0 K-Factor Residential Concealed Horizontal Sidewall 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.

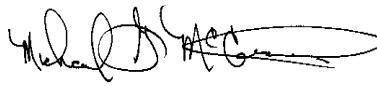
This Report is intended solely for the use of UL and the Applicant for establishment of UL certification coverage of the product under UL's Follow-Up Service. Any use of the Report other than to indicate that the sample(s) of the product covered by the Report has been found to comply with UL's applicable requirements is not authorized and renders the Report null and void. UL shall not incur any obligation or liability for any loss, expense, or punitive damages, arising out of or in connection with the use or reliance upon the contents of this Report to anyone other than the Applicant as provided in the agreement between UL and Applicant. Any use or reference to UL's name or certification mark(s) by anyone other than the Applicant in accordance with the agreement is prohibited without the express written approval of UL. Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

Report by:



Steven Wisniewski
Engineering Assoc Lead

Reviewed by:



Michael McCormick
Engineering Assoc Staff