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Guidelines for Fusible Links

Introduction

Fusible links are a vital part of a fire protection program. They are for use in conjunction with automatic closing devices for fire doors. This DASMA Technical Data Sheet provides information for the selection, installation and maintenance of fusible links.

Fusible links are listed in the UL Building Materials Directory under category JGIX, and in the Approval Guide for Building Materials published by FM Approvals. These listings show manufacturers, fusible link types, temperature ratings and load ratings.

Selection

Select a fusible link based on:

- The size of the link and the load rating in pounds for the link.
- The maximum ambient temperature rating for the link that is greater than the maximum ambient exposure temperature at the fire door. For example, an ordinary fusible link rated at 165 degrees F has a maximum ambient temperature rating of 100 degrees F. If a fusible link rated at 165 degrees F is routinely exposed to ambient temperatures over 100 degrees F, it is liable to separate and cause the fire door to close automatically. Select a fusible link rated at 212 degrees F (or greater) for this type of application.

(Note: Fusible links are available in many different load ratings. The load rating is an important factor in the design and selection of a fire protection system. Be sure to account for all loads when selecting a fusible link.)

Installation

Installation should be accomplished by a trained door systems technician in accordance with the instructions provided by the door manufacturer. Refer to the most current edition of NFPA 80 for required and prohibited link locations.

Guidelines

The following guidelines are recommended for facility managers or other end users of door products which include fusible links:

(Note: NFPA 80 addresses maintenance and inspection of fusible links. The following guidelines reflect some of the information found in NFPA 80 but cannot be used as a substitute for the Standard.)

- Inspect fusible links at least annually for evidence of corrosion, stress/strain or build-up of particulate matter. Inspect at least every six-months in environments where corrosion, grease, dust or other conditions compromising fusible link performance may exist.
- Consider annual replacement in severe conditions such as corrosive or greasy atmospheres.
- Fusible links that have been painted must be replaced as soon as the condition is observed.
- Fusible links coated with sand, paper dust, fiberglass hairs or similar particulate matter should be cleaned. If cleaning with air pressure does not remove such matter, replace the links, or contact either the Authority Having Jurisdiction or the fusible link manufacturer for guidance.
- When using fusible links in conjunction with a temperature-activated sprinkler system, the following guidelines are recommended:
 - Do not locate fusible links in an area accessible to the sprinkler heads unless they are shielded from the water spray.
 - Coordinate the degree of activation between the two systems so that the activation temperature of the fire door is lower than the activation temperature of the sprinkler system.

Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.

This Technical Data Sheet was prepared by the members of DASMA's Rolling Door Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.