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Australian Standard 2427-1981

SMOKE/HEAT RELEASE VENTS



STANDARDS ASSOCIATION OF AUSTRALIA
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Commonwealth Fire Board
Confederation of Australian Industry
Department of Defence
Department of Housing and Construction
Fire fighting authorities
Insurance Council of Australia

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AS 2427—1981

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PREFACE

This standard was prepared by the Association's Committee on Fire Venting.

For some time, building regulations have required smoke/heat release vents to be fitted in certain buildings. There was no specification for these vents to which reference could be made. A standard for the installation of these vents is in course of preparation, and a standard for their maintenance has been published as AS 1851, Part 5.

The requirements of this standard are based on research conducted by Experimental Building Station.

This standard requires reference to the following Australian standards:

- AS 1170 SAA Loading Code
Part 2—Wind Forces
- AS 1397 Hot-dipped Zinc-coated or Aluminium/Zinc-coated Sheet Steel in Coils and Cut Lengths
- AS 1449 Wrought Alloy Steels—Stainless and Heat-resisting Steel Plate, Sheet and Strip
- AS 1588 Filler Rods for Welding
- AS 1650 Galvanized Coatings on Ferrous Articles
- AS 1734 Wrought Aluminium and Aluminium Alloy Flat Sheet, Coiled Sheet and Plate for General Engineering Purposes
- AS 1865 Wrought Aluminium and Aluminium Alloy Drawn Wire, Rod, Bar and Strip for General Engineering Purposes
- AS 1866 Wrought Aluminium and Aluminium Alloy Extruded Rod, Bar, Solid and Hollow Shapes for General Engineering Purposes
- AS 1874 Aluminium Ingots and Aluminium Alloy Ingots and Castings
- AS 1890 Thermally-released Links
- AS 1897 Electroplated Coatings on Threaded Components (Metric Coarse Series)
- AS 2428 Methods of Testing Smoke/Heat Release Vents
- AS G18 Wrought Alloy Steels of the BS 970 En Series Type
- AS Installation of Smoke/Heat Venting Systems*

*In course of preparation.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
SMOKE/HEAT RELEASE VENTS

SECTION 1. SCOPE AND DEFINITIONS

1.1 SCOPE. This standard specifies requirements for vents that are intended to be mounted in roofs of buildings to release the products of combustion in the event of fire.

1.2 DEFINITIONS. For the purpose of this standard, the following definitions apply:

Automatic smoke/heat release vent—a vent which is designed to be fitted in a building and whose automatic opening, after the outbreak of fire, will allow the escape of smoke and hot gases.

NOTE: The term 'vent' when used in this standard is synonymous with 'automatic smoke/heat release vent'.

Dual-purpose vent—a smoke/heat release vent which has provision to permit its use for comfort ventilation.

Vent area—the minimum net area of the airway in a vent.

Effective aerodynamic area—the area of an equivalent aerodynamically perfect orifice.

NOTE: Effective aerodynamic area is calculated as the vent area multiplied by the discharge coefficient.

Discharge coefficient—the ratio of effective aerodynamic area to the vent area.