

AS 2380.2—1991

Australian Standard®

**Electrical equipment for explosive
atmospheres — Explosion-
protection techniques**

Part 2: Flameproof enclosure d

This Australian Standard was prepared by Committee EL/14, Electrical Equipment in Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 23 October 1991 and published on 16 December 1991.

The following interests are represented on Committee EL/14:

Australian Electrical and Electronic Manufacturers Association

Australian Institute of Petroleum

Confederation of Australian Industry

Department of Mineral Resources, N.S.W.

Department of Resource Industries, Qld

Electrical Contractors Association of Australia

Electricity Supply Associations of Australia

Institute of Instrumentation and Control

Insurance Council of Australia

The Workcover Authority, N.S.W

Regulatory authorities (electrical)

Testing interests.

Additional interests participating in preparation of Standard:

University of New South Wales.

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PREFACE

This Standard was prepared by the Standards Australia Committee on Electrical Equipment in Hazardous Areas, to supersede AS 2480—1986, *Electrical equipment for explosive atmospheres — Flameproof enclosure — Type of protection d*. This Standard is intended for the guidance of manufacturers, users, statutory authorities and associated interests. It is Part 2 of a series of Standards dealing with the explosion-protection of electrical equipment intended for use in hazardous areas.

In its terminology, definitions and general treatment of the subject, this Standard is similar to the following Standards issued by the International Electrotechnical Commission and the European Committee for Electrotechnical Standardization.

IEC 79-1 *Electrical apparatus for explosive gas atmospheres*
Part 1: *Construction and verification test of flameproof enclosures of electrical apparatus*

EN 50 018 *Electrical apparatus for potentially explosive atmospheres; flameproof enclosure d*

Acknowledgment is made of the assistance received from these sources.

The major changes to this edition are as follows:

- (a) General requirements are covered by reference to AS 2380.1, *Electrical equipment for explosive atmospheres — Explosion-protection techniques*, Part 1: *General requirements*
- (b) The average surface roughness of joints is not to exceed 6.3 μm .
- (c) Measurement of minimum width of joints and maximum gap have been clarified.
- (d) Amended requirements for plugs and socket-outlets have been included.
- (e) Tests to determine explosion pressure and the non-transmission of an internal ignition have been altered to align with the current IEC requirements.
- (f) Provisions for testing to acetylene have been included.
- (g) Requirements for breathing and draining devices as well as non-metallic enclosures, and parts of, have been included as informative appendices.

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