AS/NZS 3957:2006

Australian/New Zealand Standard™

Light-transmitting screens and curtains for welding operations

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-006, Eye Protection. It was approved on behalf of the Council of Standards Australia on 8 December 2005 and on behalf of the Council of Standards New Zealand on 21 December 2005.
This Standard was published on 9 January 2006.

The following are represented on Committee SF-006:

Guild of Dispensing Opticians, Australia
N.S.W. Rural Fire Service
New Zealand Association of Optometrists
New Zealand Employers and Manufacturers Association
Optical Distributors and Manufacturers Association of Australia
Optometrists Association Australia
Queensland University of Technology
Safety Institute of Australia
The University of New South Wales
University of Auckland New Zealand
Welding Technology Institute of Australia
WorkCover New South Wales

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This Standard was issued in draft form for comment as DR 04297.

Australian/New Zealand Standard™

Light-transmitting screens and curtains for welding operations

Originated in Australia as AS 3957—1991.
Originated in New Zealand as NZS 5852:1991.
Jointly revised and designated as AS/NZS 3957:2006.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 7066 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-006, Eye Protection, to supersede AS 3957—1991 and NZS 5852—1991.

Welding screens receive some attention in AS 1336, *Recommended practices for occupational eye protection*. This Standard deals specifically with safety requirements for screens and curtains for areas where hazardous intense light transmission from welding operations occur.

This revision of the Standard contains editorial corrections and takes into account the withdrawal of Standards referenced in the previous revision, AS 1441.13—1973 and AS 2324—1979.

Flame propagation test requirements of AS 1441.13—1973 are now included as an Appendix, whilst material requirements of AS 2324—1979 have been removed, as the committee feels they are prescriptive and unwarranted.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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FOREWORD

Although common practice may seem to favour the division of the ultraviolet band into three discrete spectral regions identified as UV-A, UV-B and UV-C, investigations carried out during the early stages of preparation of this Standard revealed a significant variation in the specific wavelengths used by different organizations to define the boundaries of each of the three spectral regions. Accordingly, the Standard avoids any possible confusion, which might arise from the use of discrete spectral regions, by making reference to specific wavelength ranges, where necessary.

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Australian/New Zealand Standard
Light-transmitting screens and curtains for welding operations

S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE

This Standard sets out the safety and physical requirements for light-transmitting screens and curtains intended to provide protection against hazardous radiations generated during welding processes while simultaneously affording visual contact with the working position.

1.2 APPLICATION

This Standard applies to all welding screens and curtains whether portable or permanently installed.

This Standard does not apply to screens used for protection against laser radiation.

This Standard does not apply to protective materials for direct viewing of the welding processes, which are dealt with in AS 1336, AS 1337, and AS/NZS 1338.1, or to eye protection against laser radiation.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
1336 Recommended practices for occupational eye protection

1337 Eye protectors for industrial applications

AS/NZS
1338 Filters for eye protectors
1338.1 Part 1: Filters for protection against radiation generated in welding and allied operations

IEC

Publication 20—Recommendations for the integrated irradiance and the spectral distribution of simulated solar radiation for testing purposes

1.4 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

1.4.1 Luminance factor

Ratio of the luminance of an object to the luminance of a perfect diffuse reflector under identical testing conditions.

1.4.2 Luminous transmittance

Ratio of the luminous of a source of light when viewed through a curtain or screen to the luminance of that source when viewed directly.

NOTE: Luminance transmittance is usually specified with respect to a Standard Illuminant.