SINGAPORE STANDARD

SS 98 : 2005

(ICS 13.340.20)

SPECIFICATION FOR

Industrial safety helmets

Published by
SPRING Singapore
2 Bukit Merah Central
Singapore 159835
SPRING Singapore Website: www.spring.gov.sg
Standards Website: www.standards.org.sg

SPRING singapore

SINGAPORE STANDARD

SS 98 : 2005

(ICS 13.340.20)

SPECIFICATION FOR

Industrial safety helmets

All rights reserved. Unless otherwise specified, no part of this Singapore Standard may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from the SPRING Singapore at the address below:

Head
Standardisation Department
SPRING Singapore
2 Bukit Merah Central
Singapore 159835
Telephone: 62786666 Telefax: 62786667
Email: stn@spring.gov.sg

ISBN 981-4154-11-3

Contents

Foreword

This Singapore Standard was prepared by the Working Group on Industrial Safety Helmets appointed by the Technical Committee on Personal Safety and Ergonomics which is under the purview of the General Engineering and Safety Standards Committee. It is a revision of SS 98 : 1997.

This revision brings the standard up-to-date and makes it more comprehensive by incorporating recommendations made in the latest relevant international and overseas standards. The main revisions are:

1. More specific description of requirements for internal vertical clearance, horizontal clearance and wearing height.

2. Removal of testing requirements for metal parts which have become obsolete, as generally industrial helmets are made of polymeric materials.

3. Prescription of acceptance criteria for sample testing.

4. Requirement that the shell shall have as uniform a strength as possible and shall not be specifically reinforced at any point. This is to address the concern on the possibility that some helmets may be reinforced at localised tested area while the other areas may be flimsy.

5. Inclusion of more graphics to improve ease of reading and interpretation of the standard, namely the diagrams showing typical components of industrial safety helmets, the example depicting internal vertical clearance, wearing height and horizontal clearance, and the illustration on test set-up for resistance to flame.

In preparing this standard, reference was made to the following publications:

1.	ANSI Z89.1: 1997	Industrial head protection
2.	AS/NZS 1800 : 1998	Occupational protective helmets – Selection, care and use
3.	AS/NZS 1801 : 1997	Occupational protective helmets
4.	BS EN 397 : 1995	Industrial safety helmets
5.	BS EN 960 : 1995	Headforms for use in the testing of protective helmets
6.	ISO 3873 : 1977	Industrial safety helmets
7.	ISO 6487 : 2002	Road vehicles – Measurement techniques in impact tests – Instrumentation

Acknowledgement is made for the use of information from the above publications.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. SPRING Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The changes in Singapore Standards are documented through the issue of either amendments or revisions.*

2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

Specification for industrial safety helmets

1 Scope

This Singapore Standard specifies physical and performance requirements, methods of test and marking requirements for industrial safety helmets. The mandatory requirements apply to helmets for general use in industry. Additional optional performance requirements are included to apply only where specifically claimed by the helmet manufacturer. Industrial safety helmets are intended primarily to provide protection to the wearer against falling objects and consequential brain injury and skull fracture.

Annex J sets out the recommended practice for care and maintenance of industrial safety helmets.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 960, *Headforms for use in the testing of protective helmets*

ISO 6487, *Road vehicles – Measurement techniques in impact tests - Instrumentation*

ISO 2859, *Sampling procedures for inspection by attributes*

3 Definitions

For the purpose of this Singapore Standard, the following definitions apply:

3.1 Industrial safety helmets

Headgear, hereinafter referred to as a “helmet”, primarily intended to protect the upper part of a wearer’s head against injury from falling objects (see Annex A).

3.2 Shell

The hard, smoothly finished material that provides the general form of the helmet.

3.3 Peak

An integral part of the shell that extend forward over the eyes only.

3.4 Brim

A rim surrounding the shell which may form a gutter.

3.5 Harness

The complete assembly that provides a means of maintaining the helmet in position on the head; and/or of absorbing kinetic energy during an impact.