

**SS 9:2024**  
(ICS 13.340.20; 43.140)

**SINGAPORE STANDARD**

# **Specification for protective helmets for motorcyclists**



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## Foreword

This Singapore Standard was prepared by the Working Group on Protective Helmets for Motorcyclists set up by the Technical Committee on Personal Safety and Health under the purview of the Safety and Quality Standards Committee.

This is a revision of SS 9:2014. In this revision, the main changes are as follows:

- Change of requirements for helmet shells;
- Removal of penetration test;
- Inclusion of requirements for testing with the attachment of helmet accessories;
- Change of peripheral vision and Figure 2;
- Change of provision of helmets for testing;
- Change of test for strength of retention systems;
- Change of chin guard test;
- Change of shock absorption test;
- Change of oblique impact test;
- Change of requirements for information label;
- Change of conditioning before testing and removal of solvent conditioning; and
- Change of test of visors.

It is emphasised that the protection given cannot be complete and that the wearing of a helmet may not prevent injury or death in severe accidents. The attention of users is to be drawn to the fact that helmets are, of necessity, constructed so that the energy of a severe blow is absorbed in the partial destruction of the shell and/or protective padding material although the damage may not be visible; any helmet that suffers such an impact is to be discarded and replaced by a new one.

It is presupposed that in the course of their work, users will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore shall not be responsible for identifying all of such legal obligations.

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

1. BS 1154:2003 Natural rubber compounds. Specification
2. BS 6658:1985 Specification for protective helmets for vehicle users
3. BS EN 960:2006 Headforms for use in the testing of protective helmets
4. ISO 6487:2015 Road vehicles – Measurement techniques in impact tests – Instrumentation
5. UNECE R22 – Rev. 5 – 06 series (2021) Uniform provisions concerning the approval of protective helmets and their visors for drivers and passengers of motor cycles and mopeds.

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1. From “BS 6658:1985 Specification for protective helmets for vehicle users”, permission to reproduce extracts from the British Standard is granted by BSI Standards Limited (BSI). No other use of this material is permitted.
2. From “UN Regulation No. 22 – Rev. 5 – 06 series Uniform provisions concerning the approval of protective helmets and their visors for drivers and passengers of motor cycles and mopeds”, by United Nations Economic Commission for Europe, © 2021 United Nations. Used with the permission of the United Nations.

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# Specification for protective helmets for motorcyclists

## 1 Scope

This standard specifies requirements for helmets to be worn by riders and passengers of motorcycles and motorcycles with sidecars excluding those used by participants in competitive events. It is intended to give a reasonable measure of protection for general motorcycle riding.

This standard does not cover accessories such as goggles, detachable peaks and detachable face covers.

This standard covers the testing methods for the following:

- a) Extent of shell;
- b) Shock absorption properties;
- c) Response to oblique impact;
- d) Strength of chin guard;
- e) Strength and effectiveness of retention system;
- f) Light transmission of visors.

## 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 |
|-----------|--|

## 3 Terms and definitions

For the purposes of this Singapore Standard, the following terms and definitions apply.

### 3.1 Accessories<sup>1</sup>

Any object intended to integrate the secondary functionalities of the helmet (e.g. tear-off inner visor, electronic devices and their support).

### 3.2 Basic plane<sup>2</sup>

- a) Of a human head:

A plane at the level of the external auditory meatus (external ear opening) and the inferior margin of the orbit (lower edge of the eye socket).

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