

CSA Z94.1-15 Industrial protective headwear — Performance, selection, care, and use



Published by Canadian Standards Association, operating as “CSA Group”

In January 2015, CSA Group issued approval for CSA Z94.1-15, Industrial protective headwear — Performance, selection, care, and use. This standard was prepared by the Technical Committee on Industrial Protective Headwear, under the jurisdiction of the Strategic Steering Committee on Occupational Health and Safety, and has been formally approved by the Technical Committee.

What is CSA Z94.1-15?

CSA Z94.1-15 (the “Standard”) applies to protective headwear (i.e., a cap or hat) for industrial, construction, mining, utility, and forestry workers. It defines the areas of the head that are to be protected and includes basic performance requirements for dielectric strength, impact attenuation, penetration resistance, passive retention (stability), shell flammability, and liner ignition resistance.

The Standard includes requirements for and provides guidance on the selection, care, and use of protective headwear. Additionally, tests specified in the Standard set minimum performance requirements for protective headwear.

Why was a new Standard created?

The Standard is subject to review every five years from date of publication. As a result, it supercedes previous editions published in 2005, 1992, 1977, and 1966 under the title, “Industrial Protective Headwear.”

What updates have been made to CSA Z94.1-15?

Important updates to the Standard are listed here:

- **Protection Area Established (Clauses 6.3.1, 7.4.6.2, 10.2.5, 10.3.6, and Figure 2)**

A minimum protection area around the top of the head has been established for penetration and impact tests¹. Additionally, within that protected area, there cannot be penetration to the headform by the 2.5mm diameter test blade through any holes in the helmet, whether vent holes or any other type.

- **Headform Size “O” Eliminated (Clause 7.4.7)**

The largest size of headform (size “O”) is no longer specified for testing purposes.

- **Aging Requirements Eliminated (formerly CSA Z94.1-05, Section 7.6.7)**

Ultraviolet (UV) resistance requirements and the pre-conditioning procedure have been removed pending future research to validate the procedure against real use conditions (i.e., exposure to sunlight).

- **Terminology Clarified (Table C.1)**

Annex C, Table C.1 has been added to clarify terminology related to selection, care and use of protective headwear. Within Annex C, Table C.1, an explanation of the difference between accredited product certification (i.e., “Certification Mark”), and a manufacturer’s self-declaration of compliance (i.e., “meets or complies with CSA standards”) has been provided.

The new Standard and Product Compliance

CSA Z94.1-15 does not require users to discontinue using products labeled as compliant with the CSA Z94.1-05 Standard. However, if your occupation requires compliance with new requirements within the Standard, older product will not be marked and may not be compliant.

Conclusion

Worker safety is always the highest job site priority, and head protection is an essential element in providing workers with protection from falling debris, low hanging objects and electrical hazards. A Standard-compliant, properly marked hard hat should be worn in all situations where head protection hazards exist.

A copy of CSA Z94.1-15 can be purchased from CSA Group Online Store at shop.csa.ca or by calling toll-free 1-800-463-6272 or 416-747-4044.

¹ A test line designates minimum protection area, and is situated 36.4 mm above the standard reference plane at the front of the head, and 10 mm at the back.