

SAFETY MATTERS – PPE – Hard Hats



Section 3 of Australian Standard AS/NZ 1800:1998 *Occupational Protective Helmets - Selection, care and use* provides advice on the "Care and Maintenance of Occupational Protective Helmets".

Clause 3.4 - *Periodic inspection and maintenance*, states:

"All components, shells, harnesses, headbands and accessories should be visually inspected at least weekly for signs of dents, cracks, penetration or other damage due to impact, rough treatment or unauthorized alterations which may reduce the degree of safety originally provided.

"Helmets showing damage or deterioration to the shell should be immediately withdrawn from service and discarded (completely destroyed). Helmets known to have been subject to significant impact should also be discarded, (completely destroyed) even where the damage incurred is not obvious.

"Helmets with sound shells but with damaged, excessively dirty, or defective harness components should be withdrawn from service and the complete harness and cradle replaced (see also Clause 3.3)."

Clause 3.4 - *Working Life*, states:

"Excessive discolouration of the shell colour or weathering of the surface may indicate a loss of strength, as do shells with splitting or cracking of the material. Such helmets should be discarded.

"Attention is drawn to the fact that helmets complying with AS/NZS 1801 are required to contain a safety warning regarding damage due to impact and deterioration.

"At the time of issue to the wearer, the helmet should be marked with the issue date.

"Field tests have shown that generally, helmet shells have a life of at least 3 years from the time of issue. Components of harnesses may deteriorate more rapidly in service and harnesses should, therefore, be replaced at intervals not longer than 2 years.

"For helmets that are used infrequently and stored away from sunlight, dirt and temperature extremes, this guideline/recommendation may not be applicable. The user should examine the helmet regularly and discard if any damage is evident.

"Conversely, helmets that are used in extreme conditions of temperature or poorly stored, may need to be replaced more frequently."

Each helmet, when manufactured, has a year and month of manufacture stamped onto the inside of the shell near the peak for easy reading. The arrow in the stamp points to the month and the arrow overlays the arrow. For example, if the arrow points to 9 and the number is 12 - then the helmet was manufactured in September 2012.

If the helmet has been used regularly, then it should last *at least 3 years from the date of issue*. (The date of issue should be marked on an additional sticker on the inside of the helmet as the back of the shell. The date of issue may not be the same as the date of manufacture.) However, this is a guide only, and depending on use, storage and condition, this period may be longer or shorter.

The harness/headband however, has a life of *2 years only* and should be replaced then if not earlier.



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Problems arise when:

1. The date of issue is not marked on the additional sticker
2. The sticker has lifted off the helmet

If a "sticky" monogram, or sticker, is used (rather than painted/embossed logo) and placed on the helmet at the time of production by the manufacturer, BEWARE, as some of the glues used to the sticky label react with the helmet shell and the hardness of the hat may be compromised.

Where there may be confusion it is best to use the date of manufacture as the benchmark because it is permanently stamped on the inside of the helmet leaving little room for error.

In offices, safety helmets are often issued as part of an Emergency Evacuation Plan. These helmets are also governed by the standard and should be inspected regularly.

If a helmet has been stored in direct sunlight or sitting on a shelf exposed to heat (inside a locked car for example), the quality of the helmet will have deteriorated. There are instances of helmets shattering when used after being stored in direct sunlight for extended periods of time.

RECOMMENDATIONS:

1. Workplaces should develop a system to ensure that safety helmets and harnesses are regularly checked for deterioration or damage, and replaced when necessary and on a regular basis.
2. Employers should ensure that employees are aware of the need to protect safety helmets from sunlight, heat and chemicals.

The above information is based on the Australian Standard and a NSW Department of Primary Industries Safety Bulletin 'Hard Hat Expiry Date' (March 2006)

March 2013.

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