



Taking Care of Your Hard Hat

The hard hat is one of the oldest, most widely used, and most important pieces of personal protective equipment (PPE) on the job. So why is it so often misused and abused? There's no question that many workers have been saved from serious injury or even death because they were wearing a hard hat. Even with the best intentions, the effectiveness of any PPE on the job is limited when the product is not properly worn, maintained, and replaced when needed. The following are general guidelines that may be used, but it is important that you follow the manufacturer's recommendations for use and inspection of hard hats. The hard hat consists of two components: the shell and the suspension. Both require inspection during assembly and before each use.

General inspection of the shell: During shell inspection, you should look for cracks, nicks, dents, gouges, and any damage caused by impact, penetration, abrasions, or rough treatment. Additionally, if your hard hat is made of thermoplastic (polyethylene, polycarbonate) materials, inspect the shell for the following: stiffness, brittleness, fading, dullness of color, or a chalky appearance. If the shell exhibits any of these conditions or if it is obviously otherwise damaged, it should be removed from service and replaced immediately.

Inspecting for effects of UV exposure – the plastic hard hat's worst enemy: Although ultraviolet inhibitors are added to some manufacturers' hard hat shells, all hard hats are susceptible to deterioration from UV exposure. This is why it is so important that you **never store your hard hat in the rear window of a vehicle, or anywhere that it is exposed to sunlight** when not in use. If the work environment exposes the worker and hard hat to high levels of sunlight, the hat should be replaced more frequently. It is critical to monitor hard hat color stability during prolonged daylight exposure. High-visibility colored hard hats used outdoors should be monitored closely. Replace hard hats as soon as fading is evident to ensure continued worker visibility and safety.

Field testing for degraded shells: A simple field test to determine possible degradation of polyethylene shells can be performed. Compress the shell inward from the sides about 1 inch with both hands, then release the pressure without dropping the shell. The shell should quickly return to its original shape, exhibiting elasticity. There should be no residual deformation. Compare the elasticity of the sample with that of a new shell. If the sample does not exhibit elasticity similar to that of a new shell, or if it cracks because of brittleness, it should be replaced immediately.

Inspecting your hard hat's suspension: The main purpose of a hard hat's suspension is to absorb the shock of a blow to the top of the hard hat. Considering this, inspection of the hard hat suspension system is equally as important as inspecting the shell. The suspension should be inspected closely for cracks or tears, frayed or cut straps, loss of pliability, or other signs of wear. Whether your hard hat has a 4-point or 6-point suspension (the number of keys that are engaged in the hard hat's shell), all keys should fit tightly and securely into their respective key slots. Refer to the manufacturer's instructions on

assembling. Any suspension that shows signs of damage should be removed from service and replaced immediately to ensure ongoing protection of the wearer.

Replacement program: Hard hats have a reasonable service life when used in normal work environments and properly maintained. However, useful life is not indefinite and there are some recommended guidelines for hard hat replacement. Employees should consider replacing hard hats every five years, regardless of outward appearance. **If the environment is known to include higher exposure to temperature extremes, sunlight, or chemicals, hard hats should be replaced routinely after two years of use.** Most hard hats have manufacture date codes molded on the underside brim of the cap so you can easily determine the age of the cap. **Regardless of length of use, if a forcible blow of any magnitude has struck a hard hat, the shell and suspension should be replaced immediately, even if no damage is visible. Dropping a hard hat more than eight to ten feet warrants a replacement.** Don't take a chance that it might be okay, because it's not worth the risk. Hard hats are designed to provide optimal protection under normal conditions. Any impact can substantially reduce the protection offered.