

# 3M™ Hard Hats



## Ultimate Comfort. Tough Performance.

Know your risks. Put safety on your list. That means choosing the right head protection for any project where there is a risk of falling objects or head injury. 3M Hard Hats are engineered to provide comfort, protection, balance, and stability to help keep DIYers and professionals safe.

3M Hard Hats feature front brim and full brim models along with vented and non-vented versions. A patented UV indicator and easy adjustments ensure protection and comfort on any job. Advanced engineering in suspension design works in tandem with the shell to absorb impact and deflect objects. Accessory slots are available to accommodate eye, face, and hearing protection to provide total safety for everything you do.

3M Hard Hats are designed for comfort and engineered to protect.

### UV Indicator:

Over time, the sun's UV rays can cause a hard hat shell to become brittle which can compromise its ability to protect the wearer.

With the new Sun-Smart Sensor, workers have an easy way to monitor their hard hat exposure to the UV rays, so they will know when it's time for a replacement.

The sensor fades from red to white as the hard hat is exposed to UV light. When the sensor becomes completely white, this alerts the wearer that it's time for a replacement.



Know your risks. Put safety on your list.

*This document provides basic information on hard hat use, testing and standards compliance. In all cases a risk/hazard assessment should be carried out and use limitations considered to ascertain the protection required.*

## Purpose for wearing a protective hard hat:

1. Help protect workers from head trauma due to small objects falling from above.  
Hard outer shell usually made from HDPE (High-Density Polyethylene), ABS (Acrylonitrile Butadiene Styrene) or other Thermoplastic material.
2. Help prevent force from transmitting down the spine if an impact from above occurs.  
Inner suspension that is attached to the shell reduces forces that would otherwise be transmitted to the head and spine.
3. Help protect from low level electrical shock (Applies only to hard hats that meet ANSI/ISEA Z89.1-2009 Type I, Class G and E, and CSA Z94.1-2005 Type 1, Class G and E).  
Hard outer shell. The homogeneous material insulates against low level electrical shock. Not all hard hats provide electrical protection. Always review the hard hat user instructions and warnings to evaluate electrical protection.

## ANSI/ISEA Z89.1-2009 Requirements

**Overview:** Establishes the minimum performance requirements for protective helmets that reduce the forces of impact and penetration and that may provide protection from electrical shock.

### Impact Type:

Type I: Intended to reduce force of impact from blow to top of the head

Type II: Intended to reduce force of impact from blow to top or sides of the head

All 3M hard hats are Type I

### Electrical Classes

Class C (Conductive)

- Not intended to provide protection against contact with electrical hazards

Class G (General)

- Reduce the danger of contact with low voltage conductors
- Proof-tested at 2,200 volts

Class E (Electrical)

- Reduce the danger of contact with higher voltage conductors
- Proof-tested at 20,000 volts

## Cautionary Note on Electrical Protection

Class G and E helmets provide limited electrical protection. The maximum voltage against which the helmet will protect the wearer depends on a number of variables – including the characteristics of the electrical circuit, condition of the helmet

and prevailing weather conditions. The safe use of helmets in electrical applications must be established by the authority with jurisdiction.

## Two Types of Adjustable Suspension Systems:

**Ratchet Adjustment:** The wearer can quickly loosen or tighten the nylon suspension by turning a ratchet type knob while still wearing the hat. Includes a replaceable, ventilated foam brow pad that includes a cover for comfort and ventilation between the forehead and the foam.

**Pinlock Adjustment:** Similar to a belt, the wearer loosens or tightens the nylon suspension by choosing the appropriate hole along the locking mechanism. The wearer must remove the hard hat to adjust the suspension. Includes replaceable standard foam brow pad.

## Replacement Recommendations

Hard hat should be immediately replaced if subjected to impact. 3M recommends the wearer replace the hard hat suspension at least every twelve months and the hard hat shell at least every two to five years depending on work environment. Inspect the hard hat, including the suspension and shell, prior to each use. **Replace at first sign of wear.** Refer to user instructions for proper installation and replacement of the suspension.

## Hard Hat Inspection

A hard hat shell should be inspected prior to each use. Immediately replace the hard hat if any sign of wear appears or if there is any evidence of damage, abuse or plastic degradation as this may be a sign that protection is reduced. Any hard hat that shows signs of worn or damaged parts should be removed from service immediately and replaced.

Workers in environments with higher levels of exposure to sunlight, heat, cold or chemicals should replace their hard hats more frequently than workers in other environments. If the hard hat shell becomes faded in color, exhibits a chalky appearance, or feels stiff and brittle, degradation of the shell may be occurring. A hard hat should be replaced immediately at the first sign of any of these conditions.

Hard hat suspensions should also be inspected closely for cracks, frayed straps or other signs of wear. Any suspension that is damaged must be removed from service and replaced immediately.

It is recommended to replace the entire suspension system at least every 12 months.

## Maintenance and Storage

Clean the hard hat and suspension with mild soap and water. Rinse and wipe dry. Do not use paints, solvents, chemicals, adhesives, gasoline or like substances on this hard hat. Store the hard hat away from direct sunlight.

There is currently no official standard or regulatory requirement for replacing a hard hat or suspension – only recommendations.

# 3M™ Hard Hats



## 3M™ Vented UV Indicator™ Hard Hat with Ratchet Adjustment

92000 – White

92001 – Yellow

- Sun-Smart Sensor for increased hard hat safety: UV indicator lets wearers know when to replace hard hat due to UV exposure
- Comfortable suspension sits lower on head to reduce pressure points and increase security
- Optimized comfort with 3 levels of height adjustment
- Includes a replaceable, ventilated foam brow pad that includes a cover for comfort and ventilation between the forehead and the foam
- Improved smaller, smoother turning 4-point ratchet suspension system
- Lightweight protection and durability for extended comfort
- Short brim for better upward visibility
- Low profile for improved stability and balance
- Vented design helps wearers stay cooler
- Made in the USA with globally sourced materials
- ANSI/ISEA compliant when worn in the forward and reverse donning positions
- Meets the requirements of ANSI/ISEA Z89.1-2009 Type 1, Class C
- Meets CSA Z94.1-2005 Type 1, Class C requirements

### UV Indicator Shows Hard Hat Status



## 3M™ Vented Hard Hat with Ratchet Adjustment

91270 – White

- Comfortable suspension sits lower on head to reduce pressure points and increase security
- Optimized comfort with 3 levels of height adjustment
- Includes a replaceable, ventilated foam brow pad that includes a cover for comfort and ventilation between the forehead and the foam
- Smooth-turning 4-point ratchet suspension system.
- Lightweight protection and durability for extended comfort
- Short brim for better upward visibility
- Low profile for improved stability and balance
- Vented design helps wearers stay cooler
- ANSI/ISEA compliant when worn in the forward and reverse donning positions
- Meets the requirements of ANSI/ISEA Z89.1-2009 Type 1, Class C
- Meets CSA Z94.1-2005 Type I, Class C requirements





## 3M™ Non-Vented Hard Hat with Ratchet Adjustment

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91297 – White

91298 – Yellow

- Comfortable suspension sits lower on head to reduce pressure points and increase security
- Optimized comfort with 3 levels of height adjustment
- Includes a replaceable, ventilated foam brow pad that includes a cover for comfort and ventilation between the forehead and the foam
- Smooth-turning 4-point ratchet suspension system
- Lightweight protection and durability for extended comfort
- Short brim for better upward visibility
- Low profile for improved stability and balance
- ANSI/ISEA compliant when worn in the forward and reverse donning positions
- Meets the requirements of ANSI/ISEA Z89.1-2009 Type 1, Dielectric Class C, G and E
- Meets CSA Z94.1-2005 Type 1, Class C, G and E requirements



## 3M™ Full-Brim Non-Vented Hard Hat with Ratchet Adjustment

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91280 – White

- Comfortable suspension sits lower on head to reduce pressure points and increase security
- Optimized comfort with 3 levels of height adjustment
- Includes a replaceable, ventilated foam brow pad that includes a cover for comfort and ventilation between the forehead and the foam
- Smooth-turning 4-point ratchet suspension system
- Lightweight protection and durability for extended comfort
- Full brim helps protect ears and neck from UV rays
- Low profile for improved stability and balance
- ANSI/ISEA compliant when worn in the forward and reverse donning positions
- Meets requirements of ANSI/ISEA Z89.1-2009 Type 1, Dielectric Class C, G and E
- Meets CSA Z94.1-2005 Class C, G and E requirements

# 3M™ Hard Hats



## 3M™ Non-Vented Hard Hat with Pinlock Adjustment

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91295 – White

91296 – Yellow

- Comfortable suspension sits lower on head to reduce pressure points and increase security
- Optimized comfort with 3 levels of height adjustment
- Replaceable standard brow pad
- Pinlock suspension system
- Lightweight protection and durability for extended comfort
- Short brim for better upward visibility
- Low profile for improved stability and balance
- ANSI/ISEA compliant when worn in the forward and reverse donning positions
- Meets requirements of ANSI/ISEA Z89.1-2009 Type 1, Dielectric Class C, G and E
- Meets CSA Z94.1-2005 Type 1, Dielectric Class C, G and E requirements