### Care and Use of MSA Helmets; Frequently Asked Questions and Answers

It is important that you read and carefully follow all of the instructions and warnings accompanying your helmet. Failure to follow the instructions listed on the bag provided with your helmet may result in serious injury or death. For questions concerning the care and use of your MSA helmet, contact your MSA Sales Associate or MSA Customer Service at 800-MSA-2222.

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<tr>
<th>QUESTION</th>
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<tr>
<td>What electrical class does my MSA industrial helmet meet?</td>
<td>Three classes indicate a helmet's electrical insulation rating relative to ANSI/ISEA Z89.1-2009 and CSA Z94.1-2005 standards: Class E (electrical) tested to 20,000 volts, Class G (general) tested to 2,200 volts, and Class C (conductive) that provides no electrical protection. However, these voltage ratings are not intended as an indication of the voltage at which the helmet protects the wearer.</td>
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<td></td>
<td>The following MSA Class E* helmets (electrical) are intended to reduce the danger of exposure to high voltage conductors:</td>
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<tr>
<td></td>
<td>▶ V-Gard® Cap and Hat</td>
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<td></td>
<td>▶ V-Gard 500 Non-Vented Cap (formerly Advance® Cap)</td>
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<tr>
<td></td>
<td>▶ SmoothDome® Cap</td>
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<td></td>
<td>▶ Topgard® Cap and Hat</td>
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<td></td>
<td>▶ Super-V® Cap</td>
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<td></td>
<td>▶ Vanguard™ Cap</td>
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<td>*Class E ratings inherently include Class G ratings, as testing includes the lower voltage levels represented in the Class G testing procedure.</td>
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<td>The following MSA Class G (general) helmets are intended to reduce the danger of contact exposure to low voltage conductors:</td>
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<tr>
<td></td>
<td>▶ Thermalgard® Cap</td>
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<td></td>
<td>▶ Skullgard® Cap and Hat</td>
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<tr>
<td></td>
<td>▶ Comfo Cap®</td>
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<td></td>
<td>The following MSA Class C (conductive) helmets are not intended to provide protection against contact with electrical conductors:</td>
</tr>
<tr>
<td></td>
<td>▶ V-Gard 500 Vented Cap (formerly Advance Vented Cap)</td>
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<td>To what degree are MSA's industrial elevated temperature helmets rated?</td>
<td>The following MSA helmets are tested at various elevated temperatures and impacted immediately following this exposure in order to recommend a maximum temperature exposure for each helmet:</td>
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<tr>
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<td>▶ Topgard® Cap and Hat 275˚ radiant heat load</td>
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<tr>
<td></td>
<td>▶ Thermalgard Cap 350˚ radiant heat load</td>
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<tr>
<td></td>
<td>▶ Skullgard Cap and Hat 350˚ radiant heat load</td>
</tr>
<tr>
<td></td>
<td>▶ Thermal-E® Cap 500˚ radiant heat load</td>
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<tr>
<td>Which MSA industrial helmets offer protection from arc flashes?</td>
<td>There is no arc flash test or standard for industrial head protection products. According to NFPA 70E-2009, a worker is required to wear a helmet rated as Class E in accordance with ANSI/ISEA Z89.1-2009 or CSA Z94.1-2005. When used in conjunction with any MSA visor and frame, all Class E MSA hard hats will perform as well as the visor, or protect the wearer to the same calorie-rating level as the visor.</td>
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<tr>
<td>What is the service life of an MSA industrial helmet?</td>
<td>MSA helmets are designed with high-quality, wear-resistant materials but do not last forever. The helmet's protective properties will degrade by exposure to many common work environments, such as extreme temperatures, chemical exposure, sunlight, and normal daily wear and tear. MSA recommends the following replacement schedule:</td>
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<td>▶ Suspension (replace every 12 months)</td>
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<td></td>
<td>▶ Helmet (replace every 5 years)</td>
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<td>To ensure that a helmet shell or suspension has not reached the end of its service life, MSA recommends the following procedure before and after each use:</td>
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<tr>
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<td>▶ Visually inspect the shell for breakage, cracks, crazing, discoloration, chalky appearance, or any other unusual condition. Also, inspect the shell for brittleness by flexing the brim (do not compress the shell sides). These conditions can indicate a loss of impact, penetration, and/or electrical resistance and the helmet must be replaced immediately.</td>
</tr>
<tr>
<td></td>
<td>▶ The suspension should be checked for loss of flexibility. Check for cracks, breaks, frayed straps, or damaged stitching. If any of these conditions exist, the suspension must be replaced immediately.</td>
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<td><strong>NOTE:</strong> These are recommended useful service life guidelines. Wear or damage noticed during a regular inspection may determine that an earlier replacement of the entire helmet is necessary. ALWAYS replace the helmet after it has withstood impact or penetration. The life of a Skullgard Helmet tends to exceed our suggested service life due to the increased rigidity of the helmet's materials and areas of use. However, as with other personal protective equipment, a Skullgard Helmet's life should ultimately be determined by routine daily inspection before and after use.</td>
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| What does the date code on an MSA industrial helmet represent? | The date code indicates when the shell was molded. Date codes are molded into the underside of the shell's brim with the year and month in which that specific shell was molded. This date does not indicate a helmet's service life; the service life begins when it is placed into service (see above). 

*The following date code refers to these MSA Protective Caps/Hats:*

- V-Gard Cap and Hat
- V-Gard 500 Vented and Non-Vented Cap (formerly Advance Cap)
- SmoothDome Cap
- Topgard Cap and Hat
- Super-V Cap
- Vanguard Cap
- Comfo Cap

The date code is represented by two rings noted around the center circle:

(A) the outer ring indicates the year, and (B) the inner ring indicates the month. The smaller arrow between both rings points to the year (A), and the arrow inside the center circle points to the month (B). Therefore, this specific example reads May (5th month) of 2009 (09 on outer ring).

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<th>MSA Skullgard Cap and Hat</th>
<th>MSA Bump Cap</th>
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<td>Four years are noted in the center, and each year is surrounded by four medallions. As each quarter of each year passes, the medallions are “dotted.” This process is continuous and read in a clockwise direction. Therefore, this specific example reads 3rd quarter (July-September) of 2009.</td>
<td>Two rings are noted around the center circle: (A) the outer ring indicates the year, and (B) the inner ring indicates the month. The smaller arrow between both rings points to the year (A), and the arrow inside the center circle points to the month (B). Therefore, this specific example reads May (5th month) of 2009 (09 on outer ring).</td>
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Are any MSA suspensions interchangeable among MSA industrial helmets? | The following MSA suspension and helmet assemblies are interchangeable and meet ANSI/ISEA Z89.1-2009 when used together. 

*MSA V-Gard Staz-On® and Fas-Trac® Suspensions are interchangeable among these MSA helmets:*

- V-Gard Cap (standard size)
- V-Gard Hat
- V-Gard 500 Vented Cap (formerly Advance Vented Cap)
- V-Gard Non-Vented Cap (formerly Advance Non-Vented Cap)
- SmoothDome Cap

Therefore, a V-Gard Cap (standard size) Staz-On or Fas-Trac Suspension can be used in a V-Gard Hat as well as a V-Gard 500 Cap (Vented and Non-Vented) and SmoothDome Cap. And in keeping, a suspension specifically noted for a V-Gard 500 Cap can be used in a V-Gard Cap (standard size), V-Gard Hat, or SmoothDome Cap.

The same holds true for MSA’s officially-licensed line of NFL V-Gard Caps and Freedom™ Series V-Gard Caps and Hats. |

Can another manufacturer's suspension be used in an MSA industrial helmet? | No. MSA caps and hats are only tested with MSA suspensions; therefore, we do not know if another manufacturer’s suspension will pass ANSI’s impact and penetration requirements when used in an MSA helmet. Suspension webbing is also referred to ‘crown strap’. The length of crown straps varies depending upon the helmet with which it is intended to be used; lengths vary, not only from manufacturer to manufacturer, but among MSA suspensions as well. As a result, you cannot use any MSA suspension with any MSA helmet. Lengths vary depending upon crown clearance (distance between shell and suspension) necessary to meet ANSI/ISEA Z89.1-2009. |

Can an MSA industrial helmet be purchased without a suspension? | MSA will not sell a hard hat shell without a suspension because we label our shells with appropriate standards information in which the shell and suspension meet as an assembled product. Shells alone do not meet these standards; the shell and suspension work together in order to provide you with the necessary protection. |
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| Can an MSA industrial helmet be worn backwards? | The following MSA helmets meet the voluntary standard for reverse donning as prescribed by ANSI/ISEA Z89.1-2009:  
- V-Gard Caps and Hats  
- V-Gard 500 Caps  
- SmoothDome Caps  
- Topgard Caps and Hats  
- Thermalgard Caps  
- Skullgard Caps and Hats  

Accepted models display the official reverse donning logo.  
**NOTE:** Be sure that the suspension has been reversed so that the nape strap is in the rear. Use caution before using accessories while wearing an MSA helmet backwards. Wearing a cap with the brim facing the rear may reduce the performance of accessories, such that they may not meet the applicable requirements. |
| Can a bandana, hood, or skullcap be worn under an MSA industrial helmet? | A bandana, hood, or skullcap should not affect an MSA helmet's impact properties as long as it is worn smoothly on top of the head. Caution should be taken to avoid bunching up of material, which can cause pressure points and affect the helmet's ability to protect as desired. A ratchet suspension and/or chinstrap should be used to help ensure the best possible fit. |
| Can a baseball cap be worn under an MSA industrial helmet? | MSA does not recommend placing a baseball cap between the head and the suspension; baseball caps may interfere with the helmet suspension's capability to work properly during impact. |
| Can anything be placed in the space between an MSA industrial helmet's shell and its suspension? | Items such as gloves, cigarettes, and earplugs should never be stored between the suspension and the shell, as this space is needed when the shell and suspension absorb an impact's energy. Such objects in this space can transmit significant forces to the head and neck that can result in serious injury or death. |
| Can an MSA industrial helmet be painted? | MSA recommends that paint never be used on any helmets except for Thermalgard Caps and Skullgard Caps/Hats. Paint may attack and damage shells of other MSA industrial helmets, thereby reducing the degree of protection originally provided. Due to the inert properties of these three shells – Thermalgard and Skullgard Helmets, MSA is able to paint these shells. |
| What effect if any does a logo have on an MSA industrial helmet? | The ink used by MSA for helmet imprinting does not affect a shell's integrity. Once the ink is cured – approximately 24 to 48 hours after being placed onto a helmet – the ink will not flake off of the hard hat, as it then becomes part of the shell material. |
| Do any MSA industrial helmets and/or their suspensions contain latex? | MSA industrial helmets as assemblies include the helmet shell and suspension. Shells are made from one of the following materials, depending upon helmet model:  
- Polyethylene  
- Fiberglass  
- Phenolic  

All of our industrial helmet suspensions are manufactured with molded plastics and nylon webbing. These suspensions do not contain any latex, nor do shells. |
| Can permanent markers be used on MSA industrial helmets? | An MSA helmet should not be altered or modified in any way. However, it is permissible to use alcohol-based permanent markers as those markers do not contain metal pigments which may affect helmet dielectric properties. Markers, including metallic, containing butanol, diaacetone alcohol, or propanol are safe for use. According to MSA's testing, the chemicals in these markers should not have any effect upon our helmets as these are relatively fast-drying inks. However, because it is impossible for us to test all permanent markers, caution should still be taken when making use of such materials. Be sure that the ink is not covering any damage on the helmet (i.e. cracking). |
| Can non-metallic stickers or tape be used on MSA industrial helmets? | An MSA helmet should not be altered or modified in any way. However, it is permissible to use pressure-sensitive, non-metallic stickers or tape with self-adhesive backing as long as they are placed no closer than ½" from the helmet's edge. According to MSA test results, stickers or tape placed in such locations will not affect the burn-through (i.e. dielectric classification) of an MSA helmet's structure. |