

# V-Gard C1™ Hard Hat & ReflectIR™ Thermal Barrier FAQs



**Q You say the V-Gard C1 Hard Hat is “up to 11°C cooler.” What does this mean?  
How was it measured?**

**A** MSA engineers used a sophisticated proprietary test method to measure the inside temperature of a black, non-vented V-Gard C1 Hard Hat with a ReflectIR Thermal Barrier under sunny conditions and compared that to the inside temperature of a similar hard hat without the barrier. The ReflectIR Thermal Barrier cooled the inside of the hard hat by up to 11°C.

**Q What about other colors? What if the hard hat is vented?**

**A** A white, vented V-Gard C1 Hard Hat with ReflectIR Thermal Barrier is up to 7°C cooler under sunny conditions. The cooling effect of the ReflectIR Thermal Barrier for all colors and venting combinations falls in between 7-11°C cooler under sunny conditions.

**Q What do you mean by “sunny conditions?”**

**A** We define “sunny conditions” as 1,000 W/m<sup>2</sup> of solar irradiance. This is the definition of “peak sun hours” used by climatologists and the solar panel industry. It varies by geography, season, and time of day, but much of the world experiences “peak sun hours” at some point in the year for a certain amount of time.

**Q What if the wearer is indoors and/or it’s not sunny? What if it’s cold?**

**A** The cooling effect will be greater the sunnier it is. When the wearer is inside, the ReflectIR Thermal Barrier will have no effect. Typically, when the outdoor air temperature is cold the sun is not strong (i.e. significantly less than “peak sun”), so there will be minimal to no cooling effect.

**Q Is this hard hat only recommended for warm climates?**

**A** No, it can be used the same as a standard hard hat but will offer additional relief to those working in hot and sunny conditions.

**Q What is the ReflectIR Barrier made of, and does it affect the electrical rating of the hard hat?**

**A** The patented ReflectIR Barrier is made of aluminum, but does not conduct electricity through the hard hat. The barrier is below the brim of the hard hat so that it does not impact the electrical rating.

**Q Can I use the V-Gard C1 Hard Hat in electrical utility applications?**

**A** The V-Gard C1 Hard Hat is safe and effective to use when working with equipment that does not exceed 600 volts. In higher voltage applications, the V-Gard C1 Hard Hat is not recommended due to the increased possibility of nuisance micro-shocks. Always follow state and local guidelines and consult a qualified professional if needed.

**Q Are there any special cleaning or maintenance instructions for the ReflectIR Barrier?**

**A** Please follow the Helmet Care and Inspection instructions from the manual. We recommend cleaning the entire helmet regularly with MSA’s Confidence Plus® Cleaning Solution (P/N 10009971 or 10032737) or mild soap (no detergents) and warm water. Never use paint, solvents, alcohol, or hydro-carbon type cleaners (M.E.K., thinner, gasoline, kerosene) on this helmet as these substances may cause unnoticeable damage or generate risk of ignition of flammable fumes from helmet static discharge during cleaning.

**Q I have a V-Gard® Visor Frame for slotted hats (P/N 10154622 & 10154604), but this frame does not fit my V-Gard C1 Hard Hat.**

**A** All hat frames sold since the launch of the V-Gard C1 Hard Hat should come with slotted frame adapters designed for the V-Gard C1 Hard Hat. If you did not receive these adapters with the visor frame, or have an older frame purchased before the launch of the V-Gard C1 Hard Hat, please order a replacement kit (P/N 10225804).

**Q Is the V-Gard C1 Hard Hat compatible with current V-Gard 2-Point Chinstraps?**

**A** No, the V-Gard C1 Hard Hat is only compatible with existing V-Gard 4-Point Chinstraps: 10124238, GA90047.

**Q Can I get the ReflectIR Thermal Barrier in other MSA hard hats?**

**A** Currently, the ReflectIR Barrier is only offered in the V-Gard C1 Hard Hat.

**Q Is there a cap (front brim) version of the V-Gard C1 Hard Hat?**

**A** At this time, the V-Gard C1 Hard Hat is only available in a full brim since the additional sun protection provided by a full brim hard hat is important for the primary cooling benefit of the V-Gard C1 Hard Hat.

**Q What sizes are available for the V-Gard C1 Hard Hat?**

**A** Currently, the V-Gard C1 Hard Hat is only available in a standard (medium) size, which fits a head size of 6½-8, or 52-64 cm head circumference.

**Q What suspensions are available for the V-Gard C1 Hard Hat?**

**A** The V-Gard C1 Hard Hat is only approved for use with the Fas-Trac® III Suspension.

**Q Can the V-Gard C1 Hard Hat be Personalized?**

**A** The V-Gard C1 Hard Hat can be customized with logos, reflective stripes, and unique hard hat colors. Personalization with unique names and other information, however, is currently not available.

**Q What if the ReflectIR Barrier is scratched?**

**A** A coating is applied to the barrier to ensure it's durable, so we don't expect any issues over the service life of the V-Gard C1 Hard Hat under normal wear and tear. Also, slight scratches and blemishes to the coating should not significantly impact its cooling properties. As always, any hard hat should be replaced per the user instructions if significantly damaged.

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