



مهمات الوقاية الشخصية

الخوذة Helmet

إعداد م/عبد المجيد أمين الجندي

إصدار رقم 1 يونيو 2014

بحث شيق تحتاج فقط لعشرة دقائق لقراءته

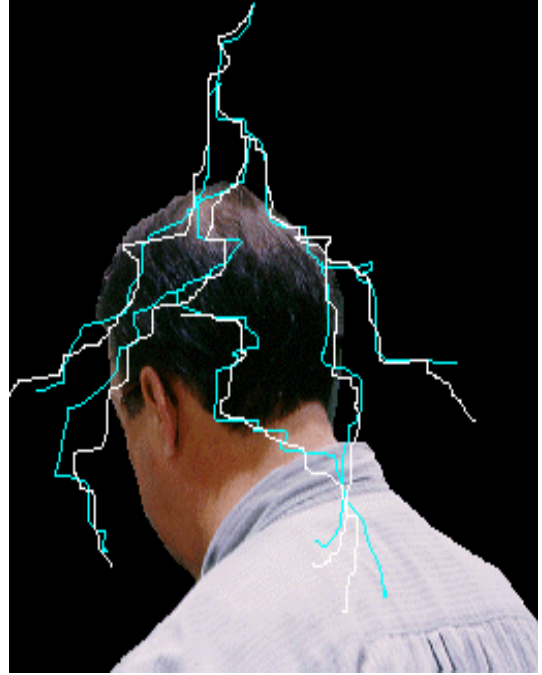
2.....	المحتويات
3.....	المخاطر على الرأس
4.....	أنواع الخوذات Types of Hard Hats
5.....	ما فائدة الألوان المختلفة
6.....	الرمز الخاص بها
7.....	ملحقات
7.....	إضافة إضاءة
7.....	حزام الذقن
8.....	أدوات حماية العين والوجه Eye and Face Protections
9.....	تاريخ صنع الخوذة
10.....	مسالة وضع دهان أو ملصقات
12.....	توصيات بخصوص الخوذة
13.....	المراجع

إِنَّ اللَّهَ وَمَلَائِكَتَهُ
يُصَلُّونَ عَلَى النَّبِيِّ
يَا أَيُّهَا الَّذِينَ آمَنُوا صَلُّوا
عَلَيْهِ وَسَلِّمُوا تَسْلِيمًا

سورة الأحزاب الآية 56

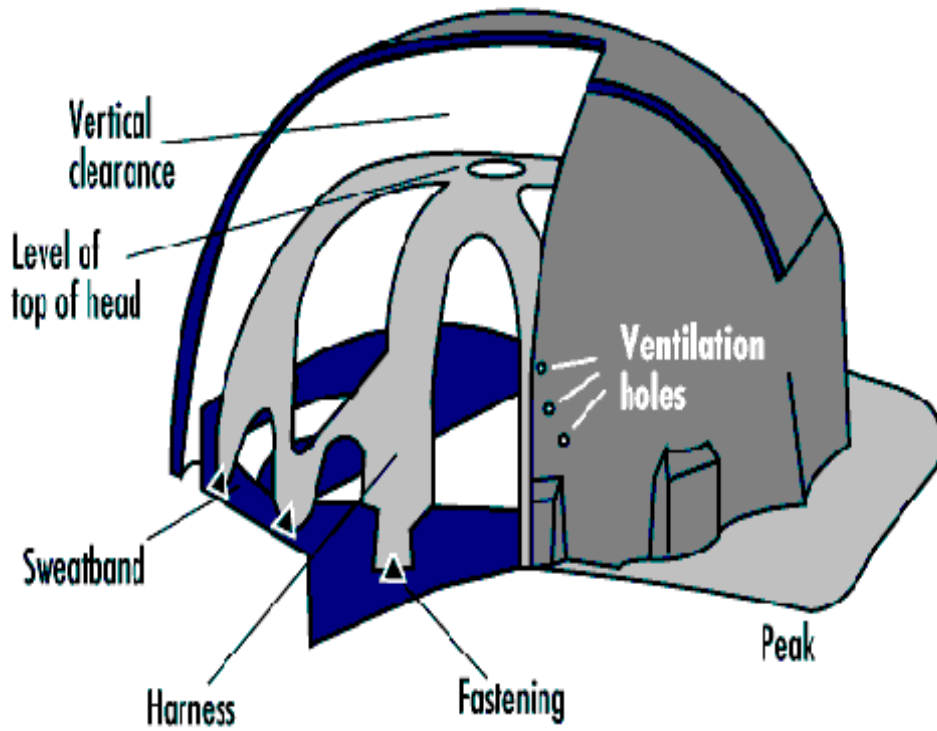


خطر سقوط الأشياء علي الرأس



خطر الصعق الكهربائي

تستخدم الخوذة الصلبة المعالجة بالبلاستيك لحماية الرأس ومقاومة الصدمات الثقيلة دون أن تتكسر . والخوذة مزودة من الداخل برباط وبطانة من البلاستيك يتم ضبطها لتناسب حجم الرأس وتقوم بإمتصاص الصدمات حيث توجد مسافة أمان بين البطانة وجسم الخوذة .



مكونات الخوذة

أنواع الخوذات Types of Hard Hats

Class A Hard Hats

Class A hard hats are designed to:

- Protect you from falling objects; and
- Protect you from electrical shocks up to 2,200 volts.

الخوذات من النوع أ

النوع أ مصمم لكي:

- لحمايتك من الأشياء المتساقطة.
- لحمايتك من الصدمات الكهربائية حتي 2200 فولت.

Class B Hard Hats

Class B hard hats are designed to:

- Protect you from falling objects; and
- Protect you from electrical shocks up to 20,000 volts.

الخوذات من النوع ب

النوع ب مصمم لكي:

- لحمايتك من الأشياء المتساقطة.
- لحمايتك من الصدمات الكهربائية حتي 2000 فولت.

Class C Hard Hats

Class C hard hats:

- Protect you from falling objects;
- **DO NOT** protect you from electrical shocks; and
- **DO NOT** protect you from corrosive substances.

الخوذات من النوع ج

النوع ج مصمم لكي:

- لحمايتك من الأشياء المتساقطة.
- **لا تحميك** من الصعق الكهربائي.
- **لا تحميك** من المواد الآكلة Corrosive .

Bump Caps

Bump caps are made from lightweight plastic and are designed to protect you from bumping your head on protruding objects. Bump caps DO NOT:

- Use a suspension system;
- Protect you from falling objects; or
- Protect you from electrical shocks.

خوذات النتوءات

مصنوعة من بلاستيك خفيف الوزن ومصممة لحماية رأسك من الإهتزاز

علي الأجسام الناتئة وهي **لا** :

- لا تحتوي علي آلية تعليق.
- تحميك من الأجسام الساقطة.
- تحميك من الصدمات الكهربائية.

تحذير: لا تستبدل أبداء الخوذة الصلبة Hard Hat بخوذة النتوءات

. Bump Cap

WARNING: You should never substitute a bump cap for a hard hat.



نماذج لبعض ألوان خوذات الرأس

من فوائد اللون هو إمكانية تمييز الفئات المختلفة من الناس مثل التخصصات المختلفة كل منها بلون خاص بها.

Q: Are there international color codes for safety helmets?

A: One color code for hard hat on construction sites uses.

- yellow : labors
- white : engineers, supervisors, managers & visitors
- red : electricians
- blue : operators
- green : HSE & safety officers

ففي سؤال عن تواجد كود لوني متبع للخوذة في مواقع العمل أم لا.

فكانت الإجابة : بذكر مثال للكود اللوني المتبع في مواقع الإنشاءات وهو كالتالي:

- اللون الأصفر : للعمال.
- الأبيض: للمهندسين و المشرفين والمديرين والزائرين.
- اللون الأحمر: للعمال الكهرياء.
- اللون الأزرق: للمشغلين.
- اللون الأخضر: لمشرفي السلامة والأمن الصناعي.



**Wear safety
helmet**

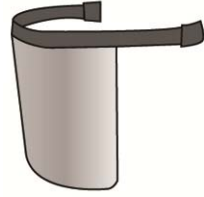
إضافة إضاءة



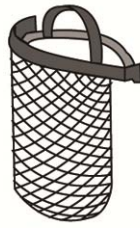
حزام الذقن

يمنع سقوط الخوذة من فوق الرأس وخاصة في حالة الهواء السريع أو حركة الرأس في اتجاهات مختلفة.





Acryl resin

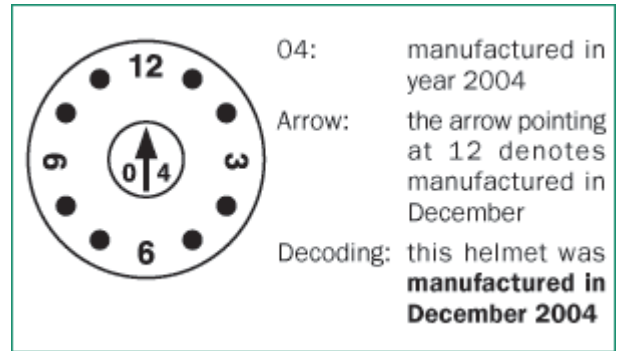
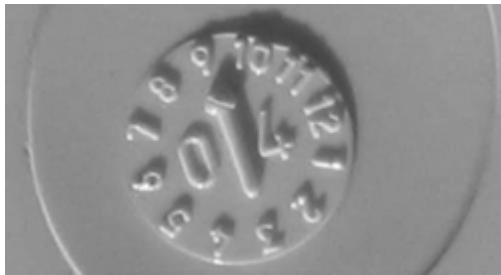


Wire mesh

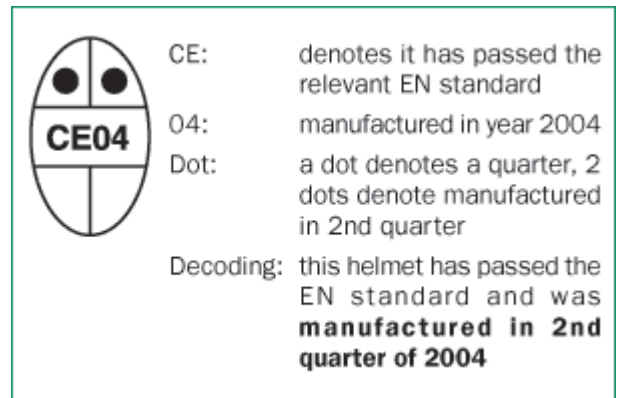


Acryl resin



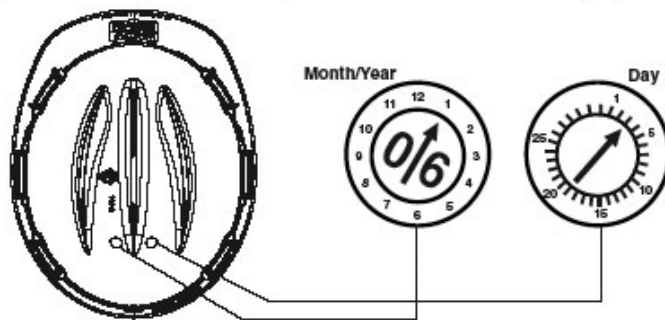


نوع ثاني

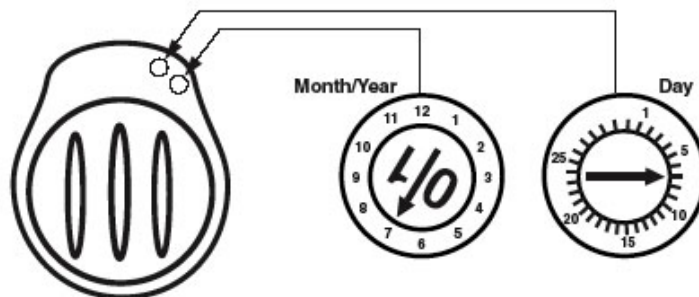


نوع ثالث

Location #1: This example shows a cap that was molded on January 3, 2006.



Location #2: This example shows a cap that was molded on July 7, 2001.



مسألة وضع دهان أو ملصقات

تكمّن المشكلة في ثقب الخوذة أو وضع دهان أو ملصقات أو تعرضها لمواد كيميائية هو الخوف من التأثير الكيميائي نتيجة التفاعل بين البلاستيك المصنوع منه الخوذة والمادة اللاصقة للملصقات أو الدهان أو المواد الكيميائية، وبالتالي يؤثر علي قوة التحمل الميكانيكية للخوذة. وهي عموماً ممنوعة إلا تحت توصيات المصنّع للخوذة.

في سؤال إلي OSHA (مرجع رقم 1)

Question: Are adhesive stickers or paints allowed on protective helmets?

Reply: OSHA's general requirements for PPE are set forth in 29 CFR 1910.132. The specific requirements for head protection (protective helmets) are outlined in 29 CFR 1910.135, which incorporates by reference American National Standards Institute (ANSI) Z89.1-1986, Z89.1-1997, and Z89.1-2003. Both 29 CFR 1910.132 and 1910.135 do not contain provisions that explicitly prohibit painting or the placement of adhesive stickers on helmet shells. However, the employer's ability to comply with the existing requirements of these standards may be adversely affected by the painting or placement of adhesive stickers on the helmet's shell.

For instance, OSHA standard 29 CFR 1910.132(a) requires that PPE be "...maintained in a sanitary and reliable condition..." [Emphasis added.] To ensure a helmet is and remains in a "reliable" condition, the helmet must be inspected prior to use for signs of dents, cracks, penetration, and any damage due to impact, rough treatment, or wear that might reduce the degree of protection originally provided and used and maintained in accordance with the manufacturer's instructions. Paints and stickers may eliminate electrical resistance and – depending on the location and quantity – conceal defects, cracks, penetration, and any damage that would be otherwise readily identifiable during the employee's inspection to ensure reliability. Another concern is that paints, thinners, and solvents, as discussed in Appendix A of ANSI Z89.1-2003 and the appendices of the 1986 and 1997 versions, can also attack or damage the shell of a helmet and reduce protection.

For these reasons, painting or applying stickers must be performed in accordance with the manufacturer's instructions, unless the employer can demonstrate that the altered protective helmet is equally as effective and protective as those meeting the requirements of Z89.1. Protective helmet manufacturers usually provide very specific instructions regarding paints, stickers, or decals that will not negatively affect the performance of a protective helmet.

OSHA would consider painting or placing adhesive stickers acceptable if the manufacturer authorizes the alteration or the employer can demonstrate that the reliability of the helmet is not affected by the paint or the adhesive on the stickers; and the paint or placement of stickers would not reduce the ability to identify defects (i.e., use of see-through stickers) or other conditions that would indicate a reduced reliability.

Thank you for your interest in occupational safety and health. We hope you find this information helpful. Please be aware that OSHA's enforcement guidance is subject to periodic review and clarification, amplification, or correction. Such guidance could also be affected by subsequent rulemaking. In the future, should you wish to verify that the guidance provided herein remains current, you may consult OSHA's website at <http://www.osha.gov>. If you have any further questions, please feel free to contact the Office of General Industry Enforcement at (202) 6934850.

Sincerely,

Though it sounds strange, the manufacturers say that adhesives and paint can damage helmets. Why? Because they can!

As was said already, most fiberglass helmets are safe. Thermoplastic helmets, however, are VERY susceptible to chemical damage. I wouldn't have believed this if I hadn't seen it with my own eyes.

I once received a shipment of new helmets at my fire department. These are helmets designed for life safety in all sorts of hazardous environments, tested and approved by a whole raft of official agencies mind you. We used a little orange oil...that stuff that's safe for the finest furniture finishes...to remove some residual goo from the helmets. Upon first contact with the moistened cloth, the thermoplastic helmet shell literally exploded into two pieces! Thinking it was a fluke, we repeated the experiment with exactly the same result.

Water-based paints should be safe on fiberglass helmets, as should most stickers. I did, however, once try to remove a sticker from my old Bell Star and found the epoxy gelcoat lifting with the sticker. I won't put ANY paint or stickers on a thermoplastic helmet. YMMV.

وفي سؤال آخر (مرجع رقم 2):

Is it OK if I put stickers on my hard hat or engrave it?

The use of self-adhesive stickers by individual users to “personalize” their hard hats or for other marking or identification purposes is a common practice. Because of the type of adhesive used in typical pressure-sensitive stickers, there is very little potential for chemical interaction between the adhesive and the helmet shell, and their use would not be expected to negatively affect the performance of the helmet under normal conditions. Adhesive stickers should be placed at least ¾” away from the edge of the helmet, and the area of the helmet covered in this way should be kept to a practical minimum to permit regular inspection of the helmet shell for signs of damage from use or aging. *If any surface cracks, however small, should appear on the shell surface, either in the vicinity of the stickers or elsewhere, the helmet should be removed from service and replaced immediately.*

The practice of engraving identification data on the underside of the brim of the helmet will not adversely affect the helmet's performance; however, this engraving must be restricted to the brim only. Any engraving or modification of the helmet shell material in the crown area above the intersection between the crown and brim, or in the vicinity of the suspension key sockets, may result in failure of the helmet to provide protection in an impact and could result in injury or death.

The best practice is always to use the helmet as it was received from the manufacturer, or to consult the manufacturer before making any product modifications.

قم بهذا:

- ارتدي الخوذة بشكل صحيح ولا تعكس اتجاهها فذلك يقلل من حمايتها لك فالسلامة أولي من الموضة.
- احتفظ بخوذات للزائرين للموقع ، ويجب فحصها دوريا .
- ارتدي حزام الذقن إذني تطلب عمك حركة في اتجاهات مختلفة أو في وسط الرياح منعا لسقوط لاختوذة.
- ارتدي الخوذة بحيث تكون مقدمتها الأمامية مستوية لهي لأعلي أو لأسفل لأن ذلك يقلل من الحماية التي توفرها الخوذة.

لا تقم بعمل هذا:

- لا تستخدم خوذة كسلة لحمل الأشياء فيها، فهي مصممة للإرتداء علي رأسك وليست مصممة مثلا لأن تقوم بخلط الأسمنت فيها أو تخزين المسامير فيها.
- لا تطلي الخوذة أو تستخدم المذيبات للصق ملصق عليها ولا تقم بحفر علامة عليها لتمييزها لأن ذلك يضعفها ويتلفها بسرعة.
- لا تحتفظ بها في مكان معرض لضوء الشمس المباشر مثل وضعها تحت زجاج السيارة الخلفي ، لن الحرارة الزائدة لأشعة الشمس تضعف البلاستيك بسرعة.
- لا تقم بعمل أي تعديل أو قطع أو ثقب في الخوذة.
- لا تقم بإعارة خوذةك لأي شخص آخر في الموقع.

Some Do's and Don'ts for Safety Helmets

Do:

- Wear the helmet the right way round – it does not give proper protection when worn back to front.Safety comes before fashion.
- Keep a supply of helmets for visitors on site. These should be checked before each issue.
- Wear a chin strap if you have to bend forward or down, look up or work where it is windy.
- Wear the helmet so that the brim is level when the head is upright, i.e. don't wear it sloping up or down as this may significantly reduce the protection it can provide.

Don't:

- Don't use your helmet as a handy basket – it is designed to fit on your head, not for mixing cement or carrying nails.
- Don't paint it or use solvents to stick labels to it, or scratch an identification mark onto it: the shell could weaken and rapidly deteriorate. The manufacturer can be asked to add a label.
- Don't store them in heat or direct sunlight, such as in the rear window of a car. Excessive heat and sunlight can quickly weaken the plastic.
- Don't modify, cut or drill your helmet.
- Don't share your helmet with anyone else on site.



https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=27272	1
http://www.bullard.com/V3/resources/FAQ/	2

رابط لمجموعة كتب أخرى:

<http://www.kutub.info/library/author/%D9%85%20%D8%B9%D8%A8%D8%AF%20%D8%A7%D9%84%D9%85%D8%AC%D9%8A%D8%AF%20%D8%A3%D9%85%D9%8A%D9%86>