#### **CE and UKCA Administration Mark**

These are neither a quality mark nor a standard, but a mandatory declaration by a manufacturer to show compliance with essential requirements of personal protective equipment legislation. Under this legislation all safety equipment must bear either the CE or UKCA mark to show that it meets the basic health and safety requirements, often evidenced by certification to a recognised standard or specification.



# MARKS OF QUALITY

Quality marks show that the requirements of certification have been met and the manufacturer has complied with an approved system of regulation and testing. They also indicate ongoing monitoring by independent bodies to ensure that the hats continue to be made to a high standard. Quality symbols include:

## **Kitemark**

This is the registered trademark of the British Standards Institute. The Kitemark indicates that a company complies with a rigorous system of regulation and testing, including regular batch and audit testing of random samples. The triangular

version of the logo is being phased out and is being replaced by a newer version.

## IC Mark

This quality mark is operated by Inspec and applied to PAS 015 and VG1-compliant helmets.



PAS 015:2011

#### SEI – Safety Equipment Institute

This quality mark is the American equivalent of the Kitemark for ASTM standard hats. The SEI is an organisation similar to the BSI and set up to ensure that a manufacturer's products meet the claimed standard. Its regulations include design approval and the audit testing of products. Hats must be tested at least annually and the company should show an internal auditing and quality-control

### SAL Global

# **CALLING TIME ON YOUR OLD HAT**

Hats should always be replaced if they have suffered any sort of impact. Although they might appear fine on the outside, the inside could tell quite a different story. For this reason, BETA always encourages riders to invest in a new riding hat, rather than buying a second-hand one, where the provenance is unknown.

It's also time to say goodbye to your hat if it's more than a few years old because the protective liner and inner padding will have started to deteriorate and the safety standards might be out of date.



# HAT TAGGING

If you take part in competitions that require hats to be tagged, be aware that the tagging process only confirms that the hat has been made to one of the standards accepted by the governing body concerned. It does not check the fit or safety of the item.

# A HELPING HAND

If you need a new riding hat or your current one needs checking, BETA-trained retailers are happy to help. To find your nearest one, visit the member directory at www.beta-uk.org.

# THE FOLLOWING COMPANIES ARE MEMBERS OF BETA AND HAVE CONTRIBUTED TO THIS LEAFLET FOR YOUR BENEFIT.





Free copies of all BETA's leaflet guides can be ordered from the BETA office. Email info@beta-uk.org, or order from BETA's online shop at www.beta-uk.org.

Help us make our sport safer! BETA is collecting information to better understand what happens to our hats and body protectors during an accident. It is key to design better and safer equipment, as well as feed into the safety standards that determine how these garments perform. If you have had an accident scan the QR code with your phone camera and fill in our form. Also, share it with your horsey friends.









# BETA GUIDE TO **RIDING HATS**



Find out more about the correct fit, safety standards and quality marks



# **KEEPING YOU SAFE**

A riding hat is one of the most important pieces of safety equipment you can buy. Modern technology means that you can choose from a huge range of extremely strong, lightweight and comfortable hats and skulls.

Wearing one can help to keep you as safe as possible by reducing the risk of serious injury. It is crucial, therefore, that a riding hat meets appropriate standards to ensure a high level of shock absorbency and prevent penetration. Making sure that a hat is a good fit with a correctly adjusted and fastened harness is also really important.

You can always buy a new hat, but your head is for life - so make sure it is protected!

## **CHOOSING A HAT**



# **FINDING A PERFECT FIT**

A well-fitting hat sits firmly on the head - just above your eyebrows and ears – and should fit snuggly all the way around the head with no pressure points at the temples. You can check

for pressure points by flexing your jaw, which in turn, expands your temples. Pressure experienced when doing this indicates that a helmet is too tight and may cause discomfort after continued wear. Scan this OR code to watch a video on checking the fit of your riding hat.





The type of hat you choose and the standard it complies with largely depends on the type of riding activity you take part in. If you compete under rules, it is always best to check each discipline's rule book before investing in a new one.

Although a hat can help to keep a rider as safe as possible, no hat can prevent serious injury under certain circumstances. You should always choose a hat based on the level of risk involved, choosing standards offering higher levels of protection where there is greater risk and the one that fits



## **STRAPPING UP**

No one would dream of getting on a horse without first checking the girth, so isn't it strange how many riders forget to check that the harness on their hat is correctly fastened.

A riding hat or skull's harness consists of two parts – a chin strap that sits neatly under the jaw and another component that fits round the back of the neck. Some hats may also incorporate a dial adjustment.



Many riders remember to do up their chin strap but the back strap is completely forgotten. Unfortunately, this is the very strap that helps to prevent the hat tipping forwards on to your nose.

Some harnesses, particularly those with lots of leather and lacing, are a little harder to fasten than others, so, if you need a helping hand, pop into your local BETA-trained retailer who will be happy to check it for

# **INSIDE STORY**

**Outer surface** – this can be made out of several materials including suede, velvet, leather or simply a textured paint. This surface slides across the source of impact and deflects the energy.

Hard shell - this is constructed from fibreglass, composite or ABS, which spreads the impact around the surface of the hat and crumples, absorbing energy from the impact.

**EPS** – this is the inner foam, which is created from expanded polystyrene. It is sometimes referred to as "microscopic bubble wrap". This layer absorbs the remaining energy incurred during a fall and reduces possible concussion/the chance of concussion. Once it has suffered impact, the bubbles are unable to reinflate, which is why you should always replace your hat after hitting your head in a fall.

**Inner fit system –** this is the innermost fabric component which fits next to the head and makes the hat comfortable against your skin. The textured weave helps keep the hat in place and can form part of the sizing in some models.

Harness - this can be made from nylon or leather. It includes a chin/jaw strap and a strap or padded fabric at the back, which is available in various

styles, such as with laces. Some helmets, however, do not feature anything to alter at the back.

MIPS - MIPS stands for 'Multi-directional Impact Protection System' and the MIPS Brain Protection System (BPS) can be found inside the helmet as an additional layer between the EPS liner and the inner fit system where it exists. The low friction layer, which allows a sliding movement of 10-15 mm in all directions acts like a second scalp. The BPS can reduce the rotational motion in certain impacts which may reduce the risk of brain trauma.

Hard outer shell



(BS) EN1384:2023 Awaiting harmonisation/designation, this has been re-written to offer slightly less protection than PAS015:2011.

VGI – with or without Kitemark or IC Mark The testing specification is similar to that of EN 1384. As the VGI is an interim specification for the purpose of CE marking, it is unclear how long it will continue once the new version of EN 1384 appears on the market. Hats made to the VGI standard will continue to be accepted by UK disciplines and marketed for some time to come.

PAS stands for product approval specifications, which are developed by the BSI. A difference in performance criteria exists between the two versions of PAS, with the 2011 standard demanding more from the hats than the previous one. Many of the disciplines including BE, BS, PC, BRC and BSPS now only accept the 2011 version.

test.

# **SAFETY AS STANDARD**

All riding hats and skulls should conform to one of the wide range of standards available and bear the CE or UKCA administration mark.

European standards are created by a technical committee made up of representatives from every EU state. They are reviewed every five years – or if there has been a complaint about efficacy. Not every

ach standard shows that a hat has passed rigorous testing and has been found to offer appropriate levels of protection.

review, however, results in the introduction of a new standard. History shows that one appears about every ten years. PAS standards are managed by the British Standards Institute (BSI) and reviewed regularly.

#### Suitable standards include the following:

#### PAS 015: 1998/2011/2023 – with or without Kitemark or IC Mark

#### ASTM F1163: 2004a/2015/2023 – with SEI mark

An American standard, the earlier 2 versions offer substantially less protection than PAS015. Only the 2023 version includes a mechanical strength (crush) test and none include a spike (penetration)

The law requires children of 14 or younger to wear a hat conforming to the current European standard when riding on the road.

## Snell E2001/E2016/E2021

This standard was developed in the United States by the Snell Institute. It's a high-performance standard that includes all aspects of ASTM



and PAS 015 but is tested with a sharper horseshoe anvil (to replicate a horse kick or impact with a sharp surface), higher impacts and an additional hemispherical anvil to represent an uneven but not sharp surface such as a tree, fence or cobbled surface. The E2001 version is no longer accepted by BE, BS, PC, BRC and BSPS.

#### AS/NZS 3838: 2006 – with SAI global mark

This Australasian standard is comparable to EN 1384, although testing includes the hazard anvil from PAS 015 albeit at a lower performance level but not a penetration test.