

Motorcycle helmet standards

There are 3 standards governing helmets:

1. The US government DOT standard
2. The Snell standard which is a private US organization
3. The Economic Community of Europe (ECE 22.05) which is also applicable to helmets sold in South Africa

DOT and SNELL

In the United States, there have generally been two well known motorcycle helmets standards that are relevant for bike helmets. The FMVSS 218 or as everyone knows it, the DOT standard which is the mandatory U.S. government standard that all motorcycle helmets must meet to be legal for sale and for road use.

The DOT standard was first issued in 1974 and was updated in 1980 and again in 1988.

The second standard is issued by the Snell Memorial Foundation, a private organization that issues its own motorcycle helmet standard. Snell testing is purely voluntary on the part of the manufacturers.

ECE

A third helmet standard, applicable in South Africa, is in existence from the Economic Community of Europe (ECE)

This standard is the *most commonly used internationally* and is required by over 50 countries worldwide.

While helmet standards all have one thing in common(that is making sure your helmet does what it is supposed to)some performance requirements can conflict between different country standards. Testing proves that *ECE qualified helmets will also meet the demands of the DOT standard.*

ECE standard requires impact testing at higher velocities than the DOT standard; therefore *not all DOT certified motorcycle helmets will pass the ECE standard.*

One advantage that the ECE 22.05 standard has is the mandatory batch testing of helmets before they are released to the riding public. This means that quality of the motorcycle helmets that meet the ECE 22.05 standard is assured by a mandatory sample testing of every production of helmets before they leave the factory.

When testing is performed, the motorcycle helmet manufacturer and a representative from an authorized audit company (such as TUV in Germany) will be present to witness the testing. This is called "witness testing". If the motorcycle helmet fails the tests, its back to the drawing board.

The DOT standard is basically manufacturer self-certification. The manufacturer will conduct the required tests in their lab and if the motorcycle helmets pass, they are considered compliant, until the DOT/NHTSA receives information (usually complaints) which result in the motorcycle helmets being recalled from the market.

It is impossible to design one motorcycle helmet that can provide the maximum protection in all types of crashes. No motorcycle helmet is going to protect the wearer against all foreseeable (and sometimes unforeseeable) impacts. However, by choosing a helmet that meets a high performance standard such as ECE 22.05 you can at least give yourself the maximum level of protection

Helmets certified to the ECE 22.05 standard are approved for competition events by AMA, CCS, FIM, Formula-USA and WERA and are chosen by nearly every professional motorcycle racer competing in world championship road racing, motocross and off road events, including the ultimate sport of Moto GP.