

Hazards related to falling objects
 The protection helmet plays a crucial part, which includes three aspects
 Antipenetration function : reinforces the skull
 Shock-absorbing function : absorbs shocks
 Deflecting function : diverts the trajectory of the falling object

Hazards resulting from impacts
 Less spectacular than falling objects, but more common, the helmet plays a protective role here too

Electric hazards
 Helmets should be isolated and pass specific tests

Projection hazards
 Liquid projection (chemicals), molten metal.



Standards

EN397 (EN397/A1)

Industrial safety helmet.
 This sets out the physical and performance requirements, testing methods and marking requirements of protection helmets for the industry.

The obligatory requirements apply to protection helmets for everyday use in industry.
 Among the obligatory requirements are:

- shock absorption: a hard-hitting mass of 5.0 kg (+/- 0.1 kg) is dropped onto the top part of the helmet at a height of 1000 mm (+/- 5 mm)

- penetration resistance: a hard-hitting mass of 3.0 kg (+/- 0.05 kg) with particular characteristics is dropped

Using watermelons for a dramatic demonstration of the protection given by an industrial safety helmets



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onto the top part of the helmet at a height of 1000 mm (+/- 5 mm); it is to be noted if contact between the point and false head is found.

- flame-resistance

- chin-strap anchorage points

Optional additional requirements are applicable only when specifically demanded by the manufacturer of the helmet

EN13087-1 à EN13087-10

Protective helmets: test methods

EN812

Industrial bump caps.

This standard specifies the physical and performance requirements, the testing methods and the marking requirements of the bump caps for industry. The bump caps for industry are intended to protect the wearer when he hits his head against hard and stationary objects with sufficient force to cause lacerations or other superficial injuries. They are not intended to protect from the effects of projections or the falling of suspended or moving objects or loads. One should not confuse the bump caps for industry with the protection helmets for industry specified in EN 397.

EN14052

High performance industrial safety helmets

EN443

Helmets for firefighters.