EUROPEAN STANDARDS OF

# SAFETY BOOTS AND SHOES

You will find, below, a summed-up presentation of every standard applicable to safety boots and shoes.



## EN344 standard : general requirements

This standard defines the general requirements and test methods on safety shoes, protective shoes and working shoes for professional use.
This standard can only be used together with EN345, EN346 and EN347 standards, which specify the shoes requirements according to specific risks levels.

| | **EN345 standard : Specifications on safety shoes for professional use.** | **EN347 standard : Specifications on working shoes for professional use.** |
|---|---|---|
| | This standard defines, in reference to EN344 standard, the basic and additional (optional) requirements on safety shoes for professional use. These shoes include devices to protect the user against injuries caused by accidents liable to occur in the industrial environment for which the shoe has been designed, fitted with safety toe-cap intended to deliver a protection against impacts with an energy level equal to 200 joules. | These shoes are different from safety shoes because they have no protective toe-cap against impacts and crushing. |
| **The properties represent the combinations of the most widespread requirements. They are designed by a code :**<br>SB or S1 to S5 (safety shoes) – 01 to 05 (working shoes) | | |
| All materials | **SB** : basic properties | |
| **CLASS 1**<br>All materials except natural or synthetic polymers. | **S1** : basic properties and<br>- closed back<br>- anti-static properties<br>- heel energy absorption | **O1** : basic properties and :<br>- closed back<br>- sole resistance to hydrocarbons<br>- anti-static properties<br>- heel energy absorption |

| | | |
|---|---|---|
| | **S2** : like S1 and<br>- waterproofness | **O2** : like O1 and :<br>- waterproofness |
| | **S3** : like S2 and<br>- anti-puncture sole<br>- studded sole | **O3** : like O2 and<br>- anti-puncture sole<br>- studded sole |
| **CLASS 2**<br>Natural and synthetic polymers | **S4** : basic properties and :<br>- anti-static properties<br>- heel energy absorption | **O4** : basic properties and<br>- anti-static properties<br>- heel energy absorption |
| | **S5** : like S4 and<br>- anti-puncture sole<br>- studded sole | **O5** : like O4 and<br>- anti-puncture sole<br>- studded sole |

## MARKING

Every safety shoe must be marked in a clear and indelible way, for example, by print or by hot set, with the following information :

- Size
- Designation of the manufacturer type
- Manufacturer identification mark
- Manufacturing date (at least quarter and year)
- Reference to the European standard
- Appropriate symbols to the delivered protection or, if necessary, the appropriate category (SB, S1, …, S5) described in the table above.

Concerning the particular specifications symbols, their meaning complies with indications below :

| | |
|---|---|
| **P** | Sole resistance to puncture |
| **E** | Heel energy absorption |
| **C** | Electrical resistance, anti-stasis |
| **HI** | Insulating sole against heat |
| **CI** | Insulating sole against cold |
| **WRU** | Resistance to absorption of water by the upper of the leather shoes |
| **HRO** | Sole resistance to contact heat |
| **ORO** | Walking shoe resistance to hydrocarbons |
| **WR** | Resistance to water penetration of the junction sole / upper of the leather shoes |
| **M** | Metatarsus protection against impacts |
| **CR** | Upper resistance to cutting |