



Ultimate
Industrial

FOOT PROTECTION STANDARDS & REGULATIONS 2019

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Symbols Explained



- 200 Joule Toe Cap.



- Energy Absorbing Heel Area.



- Water Resistant Properties.



- Anti-Static Properties.



- Oil Resistant Outsole.



- Non-metallic.



- Smaller Sizes Available.



- Pierce Resistant Midsole.

Regulations Involving Safety Footwear

EN ISO 20345:2011 specifies basic and additional requirements for safety footwear used for general purpose. The standard to which the footwear conforms will be identified on the footwear together with the level of protection provided. Special risks are covered by complementary job-related standards, such as footwear for firefighters, electrical insulating footwear and footwear protecting against chain saw injuries, chemicals and molten metal splash

Levels Of Protection.

For ease of selection safety footwear normally carries a simple two or three letter code which defines the basic safety standards for that particular product. Typically this begins with an S for 200 Joule toe caps and less commonly P for 100 Joule toe caps, additional properties may be indicated by the use of further codes or pictograms. A summary of the basic standards is shown below.

Class	Detail
SB	Safety basic, 200 joules Toe Protection, Oil Resistant outer sole. (Minimum Requirement)
SBP	As SB plus Mid-Sole for penetration resistance.
S1	As SB plus Anti-Static properties and fully enclosed Energy Absorbing heel area.
S1P	As S1 plus Mid-Sole for penetration resistance.

Class	Detail
S2	As S1 plus resistance to Water Penetration and absorption.
S3	As S2 plus Mid-Sole for penetration resistance and cleated outsole.
S4	200 joules Toe Protection. All rubber or polymer construction (waterproof). Anti-Static properties, Energy Absorbing heel area.
S5	As S4 plus Mid-Sole for penetration resistance and cleated outsole.

Additional protection may be offered and the following marking codes used		SYMBOL
Whole Footwear	Penetration resistant (Force required to penetrate the sole complex shall be not less than 1100N)	P
	Energy absorption of the seat region (Minimum energy absorption of 20J)	E
	Metatarsal protection (100J Impact protection over metatarsals)	M
	Antistatic (Electrical resistance 0.1-1000MΩ tested at 100V DC in both wet and dry atmospheres)	A
	Cold insulation of the sole complex (Exposure to - 17°C 30 Minutes, maximum internal temperature decrease 10°C)	CI
	Water resistance (Whole footwear flexed in water for 80 minutes with no significant water penetration)	WR
Outsole	Resistance to hot contact (Exposure to 300°C for 60 seconds with no cracking)	HRO



Slip Resistance

The recently established EN ISO 13287 is becoming more common especially on newer styles and gives a good indication of how well a sole is likely to grip in two common scenarios. A brief summary is outlined in the table below:

SLIP RESISTANCE RATINGS FOR INDUSTRIAL PPE FOOTWEAR IN EUROPE, EN ISO 13287			
MARKING	Slip Resistance On	Minimum Coefficient of Friction For:	
		Forward Heel Slip	Forward Flat Slip
SRA	Ceramic tile with 0.5% Sodium Lauryl Sulphate solution. (i.e Soap)	0.28	0.32
SRB	Steel with 90% glycerine.	0.13	0.18
SRC	Both of the above.	Both of the above on respective surfaces.	

Slip Resistance Markings Explained

SRA

Slip Resistant (Tile)
See EN ISO 13287

SRB

Slip Resistant (Steel)
See EN ISO 13287

SRC

Slip Resistant (Tile and Steel)
See EN ISO 13287

Slip Rating	Test Method	Test	Coefficient Friction Requirement
SRA	Footwear tested on ceramic tile floor with sodium lauryl solution	Forward heel slip Forward flat slip	Not less than 0.28 Not less than 0.32
SRB	Footwear tested on steel floor with glycerol	Forward heel slip Forward flat slip	Not less than 0.13 Not less than 0.18
SRC	Tested and conforms to both of the above methods	Product meets all of the requirements of SRA & SRB	

Size Conversion.

FOOTWEAR SIZING GUIDE												
UK	2	3	4	5	6	7	8	9	10	11	12	13
EU	35	36	37	38	40	41	42	43	45	46	47	48

More Information

To find out more about safety footwear standards and the tests, checks and certification involved, download our Safety Footwear Guide online at www.ultimateindustrial.co.uk



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