

 HeathBrook®

SMART GUIDE: FOOTWEAR SAFETY STANDARDS



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Safety Standards for footwear are in place to prevent injuries. This table highlights how these standards are designed to help prevent accidents at work, so that you can meet your obligation to employees.

INJURY	PREVENTION	RELEVANT STANDARD
Crush injuries to the foot, including metatarsal damage	Wear safety footwear with a protective toecap and metatarsal guard, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard.	BS EN ISO 20345:2022, BS EN ISO 20347:2022, ASTM F2413-21
Punctures to the foot	Wear safety footwear with a puncture-resistant sole, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard.	BS EN ISO 20345:2022, ASTM F2413-21
Trips, slips, and falls	Wear safety footwear with slip-resistant soles, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard. Keep floors and walkways clean and free of hazards.	BS EN ISO 20345:2022, BS EN ISO 20347:2022
Burns	Wear safety footwear with heat-resistant materials or insulation, and that meets the requirements of BS EN ISO 17249:2021 or a similar standard.	BS EN ISO 17249:2021
Electrostatic discharge (ESD) injuries	Wear safety footwear with static-dissipative properties, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard.	BS EN ISO 20345:2022
Cuts and lacerations	Wear safety footwear with materials that are resistant to chemicals, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard. Avoid exposure to hazardous chemicals and follow relevant safety procedures when working with chemicals.	SBS EN ISO 20345:2022, ASTM F2413-21
Wet feet and water damage	Wear safety footwear with waterproof materials, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard.	BS EN ISO 20345:2022
Chemical exposure and corrosion	Wear safety footwear with materials that are resistant to chemicals, and that meets the requirements of BS EN ISO 20345:2022 or a similar standard. Avoid exposure to hazardous chemicals and follow relevant safety procedures when working with chemicals.	BS EN ISO 20345:2022, ASTM F2413-21

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This table includes all the safety classifications and other requirements in accordance with the BS EN ISO 20345:2022 the recent update to the standard for safety footwear in the UK. Look for these references when selecting safety shoes.

SAFETY STANDARDS	DESCRIPTION
SB	Basic safety footwear with a toecap resistant to impact at an energy level of at least 100 Joules and compression of at least 15kN.
SBH	Basic safety footwear with a toecap resistant to impact at an energy level of at least 200 Joules and compression of at least 15kN. Additionally, has a penetration-resistant midsole.
S1	SB standard requirements plus closed seat region, antistatic properties, energy absorption of the seat region, and resistance to fuel oil.
S1P	S1 standard requirements plus a penetration-resistant midsole.
S2	S1 standard requirements plus water penetration and absorption resistance.
S3	S2 standard requirements plus penetration-resistant midsole, cleated outsole, and increased water resistance.
S3L	S3 standard requirements plus improved slip resistance on ceramic tile floors with sodium lauryl sulphate.
S3S	S3 standard requirements plus improved slip resistance on steel floors with glycerol.
S4	Anti-static and energy absorbing properties, with a completely waterproof upper. Sole is not required to be puncture resistant.

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It's worth noting that the standards build on one another, with each higher standard encompassing the requirements of the standards before it, as well as additional requirements.

SAFETY STANDARDS	DESCRIPTION
S5	Basic safety footwear with a toecap resistant to impact at an energy level of at least 100 Joules and compression of at least 15kN. Additionally, has a penetration-resistant midsole.
S5L	Basic safety footwear with a toecap resistant to impact at an energy level of at least 200 Joules and compression of at least 15kN.
S6	SB standard requirements plus closed seat region, antistatic properties, energy absorption of the seat region, and resistance to fuel oil.
S7	S1 standard requirements plus a penetration-resistant midsole.
S7L	S1 standard requirements plus water penetration and absorption resistance.
S7S	S2 standard requirements plus penetration-resistant midsole, cleated outsole, and increased water resistance.
HRO	Heat-resistant outsole compound: shall withstand 300°C for 60 seconds.
FO	Resistance to fuel oil.
LG	Resistance to chain saw cutting.
SC	Static conductive footwear to prevent the build-up of static electricity.

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SAFETY STANDARDS	DESCRIPTION
P	Perforation resistance.
PL	Resistance to the chainsaw cutting, antistatic properties, energy absorption of the seat region, and resistance to fuel oil.
PS	Puncture resistance.
A	Antistatic properties.
C	Conductive properties.
CI	Insulation against cold temperatures.
HI	Insulation against high temperatures.
E	Energy absorption of the seat region.
WPA	Water penetration and absorption resistance.
WR	Water resistance.
CR	Cut resistance.
M	Metatarsal protection.
SR	Slip resistance on flooring.

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It is important not just to consider the Standards, but also other factors.

CONSIDERATIONS	DETAILS
Type of hazards	Different work environments have different types of hazards that can affect the feet, such as electrical hazards, chemical spills, heavy objects, and slippery surfaces. Choose footwear that is appropriate for the specific hazards present in the workplace.
Comfort	Choose shoes that fit well and provide adequate support and cushioning to prevent foot fatigue and injuries. Consider factors such as arch support, cushioning, and breathability.
Durability	Choose footwear made of high-quality materials that can withstand the wear and tear of the job. Look for reinforced toe caps and slip-resistant soles.
Proper maintenance	Properly maintain and clean safety footwear according to the manufacturer's instructions to ensure they remain effective. This can include regular inspections, cleaning, and replacing shoes when they become worn or damaged.
Standards and regulations	Safety footwear in the UK must comply with specific standards and regulations, such as the Personal Protective Equipment Regulation (EU) 2016/425, the Health and Safety at Work Act 1974, and the Personal Protective Equipment at Work Regulations 1992. Look for shoes that meet these standards to ensure adequate protection.
Fit	Make sure to try on safety footwear before purchasing to ensure a proper fit. It's important to choose shoes that fit well and provide enough room for toes to move freely.
Socks	Wear appropriate socks with safety footwear to prevent blisters and foot odour. Choose socks made of breathable materials that wick away moisture.
Break-in period	Allow for a break-in period when wearing new safety footwear to avoid discomfort and blisters. Start by wearing them for short periods of time and gradually increasing the duration.
Replacement	Replace safety footwear when they become worn or damaged. It's important to ensure that shoes are still providing adequate protection.

SMART GUIDE: FOOTWEAR SIZES



When it comes to comfort one of the key considerations has to be a good fitting shoe.

EUROPEAN	UK
34	1
35	2
36	3
37	4
38	5
39	6
41	7
42	8
43	9
44	10
46	11
47	12

EUROPEAN	UK
48	13
49	14
50	15
51	16

The majority of the shoes available in the UK are made in EU sizes. This is then converted into the equivalent UK size. The issue here is that these sizing systems aren't directly comparable.

The exact dimensions of a UK 7 (measured by foot length) as defined by ISO 19407 is 254mm, whereas an EU 40 is 253.3mm and an EU 41 is 260mm. As you can see, a UK 7 is somewhere in between, although much closer to an EU 40.

Additionally, to accommodate a foot length of 254mm (UK 7), the shoes internal length (or length of the last) would need to be between 261-273mm. The individual manufacturer will use this information to decide upon the appropriate size and/or conversion to use that will best suit their customer.

We always recommend trialing sizes to determine what is the best fit.