

OM 2009/03 Appendix 1 – European Standards and Markings for Head Protection

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Introduction

1 Harmonised European Standards for Personal Protective Equipment (PPE) have been developed as the preferred means of demonstrating equipment conformity with the basic health and safety requirements (BHSRs) of the EC Personal Protective Equipment Directive (89/686/EEC). Only equipment which meets these BHSRs is entitled to carry the CE mark and to be sold for use in the EC.

2 The alternative route to obtaining the CE mark involves the manufacturer producing a 'technical file' for the equipment which also demonstrates that it satisfies the BHSRs. In such cases, the equipment will carry the CE mark but may not display any Standard number. The manufacturer's information will contain the performance specification.

3 For Category III PPE (for use against "mortal danger"), the CE mark will be accompanied by a four-digit code number identifying the responsible Notified Body appointed to ensure that the manufactured product continues to satisfy the BHSRs.

4 Increasingly, European Standards (prefixed EN – European Norm) are being superseded or subsumed by International Standards (prefixed ISO). Where these are adopted in the UK, they will also be issued as British Standards and be prefixed BS. The British versions of standards (BS EN, BS ISO or BS EN ISO) may have minor differences from the original versions of the standard, usually in the form of a National Foreword or National Annex, to account for legislative or technical variations specific to the UK. If such a UK variation exists, this is flagged up in the attached listings below for the individual standards. BS versions may also differ slightly in the stated year of issue from the EN or ISO versions; the original EN or ISO issue dates are quoted here.

5 The Standards may contain design, performance and marking requirements for the different types of equipment. This document lists the Standards, and gives a brief explanation of the markings which they define.

Organisation of the information

6 PPE Standards are separated into broad categories, depending on the type of protection intended, eg head protection, foot protection. Separate documents have been produced for each category.

7 Within a category, where possible, Standards have been further subdivided according to the hazard (eg mechanical hazards, heat and flame) or component type

(eg filters; facepieces) as appropriate. Both current and recently superseded versions are listed, as equipment marked according to either version may be encountered in the field.

8 Standard number and date are given, with the title (sometimes abridged).

9 If a UK National variation applies to this standard, the nature of this variation is described.

10 Markings and classifications defined in the Standard for that class of equipment are listed and briefly described.

11 Related Standards, eg specific test methods which will not usually appear in the markings on equipment are listed separately at the end of each document.

12 Pictograms and symbols for each type of equipment are included at the rear of the relevant document.

Updates

13 Standards are constantly under review, and new Standards issued. The information in this document is believed to be correct at the time of issue, but updates will be necessary. The intention is to revise and re-issue the list periodically.

Further information

14 For information on how the various performance levels and classifications are assessed, and their relevance to practical use situations, contact:

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Standards for head protection

EN 397:1995 - Industrial safety helmets	
On the shell, in addition to the Standard number, maker and model identification:	
	size or size range (cm) (on both shell and harness)
	year and quarter (or month) of manufacture
	informative label with specified wording
	shell material, eg ABS, PC, HDPE etc
Optional requirements	-20°C or -30°C - tested at very low temperature
	+150°C - tested at high temperature
	440 V a.c. - tested for electrical insulation
	LD - tested for lateral deformation
	MM - resists molten metal splash
Note also that the helmet must have attachment points for a chinstrap	
EN 443:1997 - Helmets for firefighters	
Superseded by EN 443:2008	
On the shell, in addition to the Standard number, maker and model identification:	
	size or size range (cm)
	year of manufacture
Optional requirements	[14] - higher radiant heat classification (kW/m ²)
	E2 - provides electrical insulation when wet
	E3 - provides surface electrical insulation
	** , *** or **** - tested to -20, -30 or -40°C respectively
EN 443:2008 - Helmets for firefighting in buildings and other structures	
<i>Note also "EN 14458:2004 – Faceshields and visors for firefighters, ambulance and emergency services" which is described in Appendix 3 on "Eye and Face Protection"</i>	
	In addition to the Standard number, maker and model identification:
	- year of manufacture
	- Type of helmet:
	A (protects dome of the skull) or B (additionally protects the sides of the head), or
	A3b (protects dome of the skull and the frontal chin region) or B3b (additionally protects the sides of the head)
	- size or size range (cm)
	- * , ** , *** or **** - tested to -10, -20, -30 or -40°C respectively
	- E2 - provides electrical insulation when wet
	- E3 - provides surface electrical insulation
	- C – resistance to liquid chemicals

EN 812:1997 - Industrial bump caps	
In addition to the Standard number and year, maker and model identification:	
	size or size range (cm) (on both shell and, if fitted, harness)
	year and quarter of manufacture
	informative label with specified wording
Optional requirements	-20°C or -30°C - tested at very low temperature
	F - resistant to flame
	440 V (a.c.) - tested for electrical insulation
EN 14052:2005 – High performance industrial helmets	
	In addition to the Standard number, maker and model identification: - year and quarter of manufacture - size or size range (cm) (also on retention system) - mass of helmet (g) - material, if made from ABS, PC, HDPE, PS etc - KS if chinstrap supplied Optional markings: -20°C or -30 or -40°C - tested at very low temperature 150°C - tested at high temperature 7 or 14 – resistance to radiant heat (kW) 440 V (A.C.) - tested for electrical insulation MM - molten metal splash resistance
PAS 028:2002 - Marine safety helmets	
<i>Note: A PAS is an interim specification in the absence of a British or European standard specifying performance criteria. In this case these are for marine safety helmets for use by occupants of small, fast craft (e.g. lifeboats).</i>	
	In addition to the PAS number and maker identification: - year and quarter (or month) of manufacture: - size or size range (cm); - type of helmet.

Other standards relevant to head protection

These standards are intended for leisure equipment. However, the helmets may be found in the workplace.

EN 1078:1997	Helmets for pedal cyclists and users of skateboards and roller skates
EN 1384:1996	Specification for helmets for equestrian activities
EN 12492:2000	Mountaineering equipment, climbers safety helmets - Safety requirements and test methods
EN 14572:2005	High performance helmets for equestrian activities

This standard is for motorcycle helmets, and may be found in the workplace.

BS 6658:1985	Protective helmets for vehicle users
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The following standard does not appear to be a harmonized standard (i.e. able to be used for CE marking of helmets). There is also debate about the technical validity of some of the electrical insulation test methods.

EN 50365:2002	Electrically insulating helmets for use on low voltage installations
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These standards are intended for leisure equipment or alpine use and are unlikely be found in the UK workplace.

EN 966:1996	Helmets for airborne sports
EN 967:1997	Head protectors for ice hockey players. Superseded by EN ISO 10256:2003
EN 1077:2007	Helmets for alpine skiers
EN 1080:1997	Impact protection helmets for young children
EN 1385:1998	Helmets for canoeing and white water sports
EN 13484:2002	Helmets for users of luges
EN 13781:2002	Protection Helmets for drivers and passengers of snowmobiles and bobsleighs
EN ISO 10256:2003	Head protection for ice hockey players

These standards are for headforms and test methods.

EN 960:2006	Headforms for use in testing of protective helmets
EN 13087-1:2000	Protective helmets - Test methods - Part 1: Conditions and conditioning
EN 13087-2:2000	Protective helmets - Test methods - Part 2: Shock absorption
EN 13087-3:2000	Protective helmets - Test methods - Part 3: Resistance to penetration
EN 13087-4:2000	Protective helmets - Test methods - Part 4: Retention system effectiveness
EN 13087-5:2000	Protective helmets - Test methods - Part 5: Retention system strength
EN 13087-6:2000	Protective helmets - Test methods - Part 6: Field of vision
EN 13087-7:2000	Protective helmets - Test methods - Part 7: Flame resistance
EN 13087-8:2000	Protective helmets - Test methods - Part 8: Electrical properties
EN 13087-10:2000	Protective helmets - Test methods - Part 10: Resistance to radiant heat