

Protective clothing and equipment for use in violent situations and in training —

Part 5: Footwear — Requirements and test methods

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Committees responsible for this British Standard

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- APSS — Association of Police and Public Security Suppliers
- Association of Chief Police Officers in Scotland
- BSIF Test and Certification Association
- British Association for Chemical Specialities
- British Association of Women Police
- British Clothing Industry Association
- British Glove Association
- British Textile Technology Group
- Defence Industries Association
- Home Office
- Medicines and Healthcare products Regulatory Agency
- Ministry of Defence — UK Defence Standardization
- National Association of Healthcare Safety and Risk Practitioners
- National Health Service
- Personal Safety Manufacturers' Association
- Police Federation of England and Wales
- Police Purchasing Manager Association
- Police Uniform Project Group
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Foreword

This British Standard has been prepared by Subcommittee PH/3/12.

The following parts of BS 7971 are currently published or in preparation:

- *Part 1: General requirements;*
- *Part 2: Guidance on risk assessment and on the selection, use, cleaning and maintenance of protective clothing and equipment;*
- *Part 3: Personal defence shields — Requirements and test methods;*
- *Part 4: Limb protectors — Requirements and test methods;*
- *Part 5: Footwear — Requirements and test methods;*
- *Part 6: Gloves for protection against mechanical, thermal and chemical hazards — Requirements and test methods;*
- *Part 7: Slash-resistant gloves — Requirements and test methods;*
- *Part 8: Blunt trauma torso, shoulder, abdomen and genital protectors — Requirements and test methods;*
- *Part 9: Training suits and equipment — Requirements and test methods;*
- *Part 10: Coveralls — Requirements and test methods.*

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 15 and a back cover.

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Introduction

Specially designed footwear is an item of protective clothing which is generally, but not exclusively, worn by serving police officers and prison officers whilst engaged in operational duties, and during training. It is also used by civilians engaged in activities where the risks of attack and assault are similar, e.g. private security personnel, bullion handlers, escorts and couriers.

The primary purpose of such footwear is to reduce the incidence of falls due to slipping, which can result in injury to the body and limbs, and to reduce the severity of, or prevent, injuries to the feet. These injuries can be caused by impacts from lofted missiles (house bricks etc.) impacts from weapons wielded by opponents (bars, baseball bats, pieces of timber etc.), by being trodden on or kicked by opponents and by being ripped or gashed by sharp objects which are trodden on or into which the foot is accidentally placed.

The footwear can also provide limited protection against heat and chemicals.

The footwear does not provide protection against blunt trauma to the ankle and shin, so protective clothing and/or equipment to protect these areas is also necessary.

Footwear of two different types is specified. Type 1 footwear is suitable to be worn for general duties. Type 2 footwear provides a higher level of protection and is suitable to be worn by personnel attending public order situations.

1 Scope

This part of BS 7971 specifies construction and performance requirements and test methods for footwear for use by police and prison officers and others who might be exposed to attack and assault in the course of their duties, for use in operational situations and in training.

NOTE 1 Information and guidance on the selection and use of this footwear is given in Annex A.

NOTE 2 Guidance on risk assessment and the selection, care and maintenance of protective clothing and equipment for use in violent situations and in training is given in BS 7971-2.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including amendments) applies.

BS 5131-3.6:1991, *Methods of test for footwear and footwear materials — Part 3: Uppers, textiles and threads — Section 3.6: Abrasion resistance of shoe laces.*

BS 5131-3.7:1991, *Methods of test for footwear and footwear materials — Part 3: Uppers, textiles and threads — Section 3.7: Breaking strength of shoe laces.*

BS 5131-5.13:1980, *Methods of test for footwear and footwear materials — Part 5: Testing of complete footwear — Section 5.13: Measurement of the strength of stitched seams in upper and lining materials.*

BS 7971-1, *Protective clothing and equipment for use in violent situations and in training — Part 1: General requirements.*

BS EN 71-2:2003, *Safety of toys — Part 2: Flammability.*

BS EN 368:1993, *Protective clothing — Protection against liquid chemicals — Test method: Resistance of materials to penetration by liquids.*

BS EN 13287:2004, *Personal protective equipment — Footwear — Test method for slip resistance.*

BS EN ISO 105-E04:1996, *Textiles — Tests for colour fastness — Part E04: Colour fastness to perspiration.*

BS EN ISO 105-X12:2002, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing.*

BS EN ISO 15025:2002, *Protective clothing — Protection against heat and flame — Method of test for limited flame spread.*

BS EN ISO 20344:2004, *Personal protective equipment — Test methods for footwear.*

BS EN ISO 20345:2004, *Personal protective equipment — Safety footwear.*

3 Terms and definitions

For the purposes of this part of BS 7971, the terms and definitions given in BS EN ISO 20345 and in BS 7971-1 apply.

4 Footwear types and performance levels

Footwear shall be of one of two types as specified in Table 1. The performance level of each type of footwear shall be as specified in Table 1.

Table 1 — Types and performance levels for footwear

Type	Performance level ^a	Hazards against which some protection is provided	Examples of intended use
1 Without toe protection	1	Slipping only	General duties where there is the risk of spontaneous escalation leading to short term exposure to violence
1 With toe protection	2	Slipping and impacts to toe area	
2	3	Slipping and impacts to toe area. Some protection against low energy impacts to remainder of foot, and against thermal hazards	Public order situations where exposure to violence is expected
^a See also BS 7971-1.			

5 Requirements

5.1 General

Footwear shall conform to the general requirements for protective clothing and equipment for use in violent situations and in training specified in BS 7971-1, as applicable.

5.2 Construction and performance requirements

Footwear shall conform to the requirements specified in Table 2 and Table 3 for Type 1 or Type 2 footwear, as applicable.