

Specification for

Lined lightweight rubber overshoes and overboots

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Rubber Standards Policy Committee (RUM/-) to Technical Committee RUM/7, upon which the following bodies were represented:

- Association of County Councils
- Association of Metropolitan Authorities
- British Fire Services' Association
- British Footwear Manufacturers' Federation
- British Rubber Manufacturers' Association
- Chief and Assistant Chief Fire Officers' Association
- Department of Health and Social Security
- Engineering Equipment and Materials Users' Association
- Home Office
- Institution of Fire Engineers
- Malaysian Rubber Producers' Research Association
- Ministry of Defence
- RAPRA Technology Ltd.
- SATRA Footwear Technology Centre
- Tropical Growers' Association

This British Standard, having been prepared under the direction of the Rubber Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 30 March 1990

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Foreword

This British Standard has been prepared under the direction of the Rubber Standards Policy Committee. It is a revision of BS 5451:1977. The remainder of the BS 5451:1977 specification dealing with boots with defined electrical properties is now contained in BS 5145:1989. On publication of the revisions of both standards, BS 5451:1977 will be withdrawn.

NOTE This revision has been published under a new BS number in order to avoid confusion with BS 5145.

Electrically conducting lightweight rubber overshoes and overboots should be used if it is necessary to minimize electrostatic build up by dissipating electrostatic charges in the shortest possible time, e.g. when handling explosives, and where risk of electric shock from any electrical apparatus has been completely eliminated. In order to ensure that the footwear is definitely conducting, an upper limit of resistance of $1.5 \times 10^5 \Omega$ is specified.

Antistatic lightweight rubber overshoes and overboots should be used if it is necessary to minimize electrostatic build-up by dissipating electrostatic charges in situations where portable electrical equipment may be used or where electrical defects from other causes may develop. In such application it is necessary to ensure a minimum value of resistance to protect against a severe electric shock or ignition of the rubber. Experience has shown that for antistatic purposes the discharge path through a product should normally have an electrical resistance of less than $10^8 \Omega$ at any time throughout its useful life. A value of $7.5 \times 10^4 \Omega$ is specified as the lowest limit of resistance of a product when new, in order to ensure adequate protection against dangerous electric shock or ignition in the event of any electrical apparatus becoming defective when operating at voltages up to 250 V.

During service the electrical resistance of overshoes and overboots made from conducting or antistatic material may change significantly due to flexing and contamination. It is therefore necessary to ensure that the product is capable of fulfilling its desired function of dissipating electrostatic charges and also of giving any desired protection during the whole of its life. The user is therefore recommended to carry out the test for electrical resistance at regular and frequent intervals. If in doubt, the manufacturer should be consulted for frequency of testing.

In a building where conducting or antistatic overshoes and overboots are in use, the resistance of the flooring should be such that it does not invalidate the protection against electric mains shock or static electricity provided by the footwear. A specification for conducting flooring is given in BS 3187.

WARNING. In use, no insulating element should be introduced between the inner side of the overshoes and overboots and the foot of the wearer.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

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This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.