

# Rubber- or plastics-coated fabrics for water-resistant clothing — Specification

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## National foreword

This British Standard reproduces verbatim ISO 8096:2005 and implements it as the UK national standard.

The UK participation in its preparation was entrusted by Technical Committee TCI/69, Footwear and leather, to Subcommittee TCI/69/1, Textiles — Coated fabrics, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

### Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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### Summary of pages

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# INTERNATIONAL STANDARD

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**8096**

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## Rubber- or plastics-coated fabrics for water-resistant clothing — Specification

*Supports textiles revêtus de caoutchouc ou de plastique pour  
vêtements imperméables à l'eau — Spécifications*



Reference number  
ISO 8096:2005(E)



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## **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8096 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses)*.

It cancels and replaces ISO 8096-1:1989, ISO 8096-2:1989 and ISO 8096-3:1988, which have been technically revised and combined into a single document.

# Rubber- or plastics-coated fabrics for water-resistant clothing — Specification

## 1 Scope

This International Standard specifies the requirements for water vapour permeable and non water vapour permeable coated fabrics suitable for use in the construction of water penetration resistant clothing. This standard does not address the method of fabrication of the garment. However, the physical requirements attributed to water penetration resistance of the final garment should in no way be inferior to those listed for the coated fabric.

NOTE The coding system applicable to the coating polymer(s) employed in the manufacture of these coated fabrics is given in Table 1.

## 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 any amendments) applies.

ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

ISO 105-C02, *Textiles — Tests for colour fastness — Part C02: Colour fastness to washing: Test 2*

ISO 105-D01, *Textiles — Tests for colour fastness — Part D01: Colour fastness to dry cleaning*

ISO 105-D02, *Textiles — Tests for colour fastness — Part D02: Colour fastness to rubbing: Organic solvents*

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

ISO 811, *Textile fabrics — Determination of resistance to water penetration — Hydrostatic pressure test*

ISO 1419, *Rubber- or plastics-coated fabrics — Accelerated-ageing tests*

ISO 2231, *Rubber- or plastics-coated fabrics — Standard atmospheres for conditioning and testing*

ISO 2602, *Statistical interpretation of test results — Estimation of the mean — Confidence interval*

ISO 3207, *Statistical interpretation of data — Determination of a statistical tolerance interval*

ISO 3303, *Rubber- or plastics-coated fabrics — Determination of bursting strength*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

ISO 4920, *Textiles — Determination of resistance to surface wetting (spray test) of fabrics*

ISO 5470-2, *Rubber- or plastics-coated fabrics — Determination of abrasion resistance — Part 2: Martindale abrader*

ISO 5978, *Rubber- or plastics-coated fabrics — Determination of blocking resistance*

ISO 6330:2000, *Textiles — Domestic washing and drying procedures for textile testing*

ISO 6451, *Plastics coated fabrics — Polyvinyl chloride coatings — Rapid method for checking fusion*

ISO 7500-1:2004, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

ISO 7854:1995, *Rubber- or plastics-coated fabrics — Determination of resistance to damage by flexing*

EN 471, *High-visibility warning clothing for professional use — Test methods and requirements*

BS 3424-38, *Testing coated fabrics — Part 38: Determination of wounded burst strength*

### **3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

#### **3.1**

##### **coated fabric**

material composed of two or more layers, at least one of which is a textile material (woven, knitted or non-woven) and at least one of which is a substantially continuous polymeric film, bonded closely together by means of an added adhesive or by the adhesive properties of one or more of the component layers

#### **3.2**

##### **water penetration resistance**

##### **WPR**

ability of a coated fabric to withstand a hydrostatic head pressure when tested in accordance with ISO 811 at a rate of increase of pressure of 60 cmH<sub>2</sub>O/min

NOTE 1 It is recommended that the term “water penetration resistant” should not be applied to any coated fabric that does not exhibit a WPR greater than 10 kPa (approx. 100 cmH<sub>2</sub>O) when tested in the “as received” condition. The term “water-proof” is a deprecated term, which implies that the water penetration resistance of a coated fabric is equivalent to its hydraulic bursting strength.

NOTE 2 1 cmH<sub>2</sub>O = 98,066 5 Pa.

#### **3.3**

##### **water vapour permeable**

ability of a coated fabric to transmit water vapour above a specified level whilst maintaining a high degree of water penetration resistance

#### **3.4**

##### **water vapour permeability index**

##### **WVPI**

water vapour permeability of a material expressed as a percentage of a known reference standard

#### **3.5**

##### **delamination**

partial or whole separation of two, or more, of the component layers of a coated fabric

NOTE This can be either a fabric to polymer separation or a separation within the actual polymeric layer.

#### **3.6**

##### **single-texture coated fabric**

##### **single-faced coated fabric**

coated fabric in which one face is composed of the coating polymer and the reverse is the textile substrate

**3.7****double-faced coated fabric**

coated fabric in which both faces are composed of a coating polymer

**3.8****double-textured coated-fabric**

coated fabric in which both faces of the coated fabric are of a textile nature

**4 Marking and information**

Each roll of coated fabric shall have a label attached bearing the following information:

- a) the name and/or distinctive mark of the manufacturer and a means of identifying the manufacturing batch number;
- b) the number of this International Standard and the supplier's quality code relating to the material.

**5 Sampling**

Samples shall be taken that are representative of the manufacturing batch from which they are drawn.

**6 Testing and compliance****6.1 Population size**

The minimum performance values specified in Table 3 and Table 4 shall apply to the manufacturing batch as a whole.

**6.2 Tests on each sample**

The tests shall be conducted as specified in Tables 3 and 4 on test pieces extracted from each sample.

**6.3 Burst and tear strength tests**

In the event of any individual burst or tear strength result being lower than the minimum value specified in Table 4, the results of the series of such tests shall be subject to analysis in accordance with the provisions of Annex B.

**6.4 Pass/fail tests**

If any of the test pieces tested for the properties specified in Table 3 and Table 4, excepting burst and tear strength, fails to conform to the requirements specified in Table 3 and Table 4, the tests which the test piece has failed shall be repeated twice. For this purpose, two further samples shall be taken from the same source as the original sample and test pieces shall be taken from each sample so that duplicate tests may be conducted.

If all the re-test results comply with the relevant requirements of Table 3 and/or Table 4, the bulk of the coated fabric that the samples represent shall be deemed to comply with this International Standard. If any of the results of the re-tests are not in accordance with the relevant requirements of Table 3 and/or Table 4, the bulk of the coated fabric that the samples represent shall be deemed not to conform to this International Standard.