# INTERNATIONAL STANDARD

# ISO 105-C09

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AMENDMENT 1 2003-12-01

Textiles — Tests for colour fastness —

Part C09:

Colour fastness to domestic and commercial laundering — Oxidative bleach response using a non-phosphate iTeh Streference detergent incorporating a low temperature bleach activator

#### AMENDMENT 1 SO 105-C09-2001/Amd 1 2003

https://standards.iteh.ai/catalog/standards/sist/08d009cf-da79-483a-9abe-2dde041639ae/iso-105-c09-2001-amd-1-2003 Textiles — Essais de solidité des teintures —

> Partie C09: Solidité des teintures aux lavages domestiques et industriels — Blanchiment par oxydation utilisant un détergent de référence sans phosphate comprenant un activateur de blanchiment à basse température

AMENDEMENT 1



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Amendment 1 to ISO 105-C09:2001 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

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### Textiles — Tests for colour fastness —

#### Part C09:

### Colour fastness to domestic and commercial laundering — Oxidative bleach response using a non-phosphate reference detergent incorporating a low temperature bleach activator

### AMENDMENT 1

Page 1, Clause 1

Delete 4th paragraph.

Replace 5th paragraph with the following text.

This part of ISO 105 specifies a procedure incorporating the use of ECE<sup>1</sup>) non-phosphate reference detergent, sodium perborate tetrahydrate, and the bleach activator tetra-acetylethylenediamine (TAED) (see Annex A) and a procedure incorporating the use of AATCC 1993 zero phosphate reference detergent (without optical brightener), sodium perborate monohydrate and the bleach activator sodium nonanoyloxybenzene sulfonate (SNOBS) (see Annex B)<sub>2003</sub>

https://standards.iteh.ai/catalog/standards/sist/08d009cf-da79-483a-9abe-This method has been designed for the detergents and bleach systems given. Other detergents and bleach systems may require different conditions and levels of ingredient.

Page 2, subclause 4.1

Add the following subclauses under "Reference detergent".

#### 4.1.4 AATCC 1993 Standard Reference Detergent Base Powder.

4.1.5 Bleach activator, sodium nonanoyloxybenzene sulfonate (SNOBS/NOBS).

#### 4.1.6 Sodium perborate monohydrate (PB1).

#### Page 3, Clause 7

Delete existing text and replace with the following.

Provisions are made in Annexes A and B for washing procedures using a specific bleach activator and reference detergent combination.

<sup>1)</sup> European Colourfastness Establishment (ECE).

Page 6

Add the following annex before the Bibliography.

#### Annex B

#### (normative)

### AATCC 1993 Standard Reference Detergent/SNOBS procedure

**B.1** This annex specifies a procedure incorporating the use of AATCC 1993 Standard Reference Detergent (without fluorescent whitening agent and without phosphate), sodium perborate monohydrate (PB1), and sodium nonanoyloxybenzene sulfonate (SNOBS/NOBS)

The materials are supplied in three separate parts as given in Table B.1:

- a) AATCC 1993 Standard Reference Detergent Base Powder;
- b) bleach activator, sodium nonanoyloxybenzene sulfonate (SNOBS/NOBS);
- c) sodium perborate monohydrate (PB1).

For details of sources of supply apply to AATCC, PO Box 12215, 1 Davis Drive, Research Triangle Park, NC 27709, U.S.A, <u>www.aatcc.org</u><sup>2)</sup>.

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Table B.1 — AATCC 1993 Standard Reference Detergent and required materials (without optical brightener or phosphates)

a) Base detergent https://standards.iten.ar/catalog/standards/sist/08d009cf-da/9-48- 2dde041639ae/iso-105-c09-2001-amd-1-2003	% (± 0,02)
Linear alkyl benzene sulfonate, sodium salt (C <sub>11,8</sub> LAS)	18,00
Sodium alumino silicate solids	25,00
Sodium carbonate	18,00
Sodium silicate solids $(SiO_2/Na_2O = 1,6)$	0,50
Sodium sulfate	22,13
Polyethylene glycol	2,76
Sodium polyacrylate	3,50
Silicone, suds suppressor	0,04
Moisture	10,00
Miscellaneous (unreacted in surfactant stocks)	0,07
b) Sodium nonanoyloxybenzene sulfonate (SNOBS/NOBS) (100 % active)	As separate addition
c) Sodium perborate monohydrate (PB1)	As separate addition

<sup>2)</sup> AATCC Standard Reference Detergent Base Powder is an example of a suitable product available commercially. This information is given for the convenience of users of this part of ISO 105 and does not constitute an endorsement by ISO of this product.

B.2 Prepare the wash liquor by dissolving 10 g of the 1993 AATCC Standard Reference Detergent (WOB) powder [B.1a)] plus 4 g bleach activator (100 % activity) [B.1b)] and 3 g sodium perborate monohydrate [B.1c)] per litre of grade 3 water (4.2)

NOTE A minimum of 1 I detergent solution (B.2) should be prepared immediately prior to each laundering run.

**B.3** Preheat this solution to  $(20 \pm 2)$  °C and stir using an electric/automatic stirrer for  $(10 \pm 1)$  min to ensure thorough dispersion of chemicals.

**B.4** Add to each accelerated test canister the appropriate volume of wash liquor to provide a liquor:specimen ratio of 100 ml wash liquor:1 q of fabric. (Test one specimen per accelerated test canister).

**B.5** Preheat the canister to  $(20 \pm 2)$  °C, then place the test specimen in the canister. Place in the laundering device (5.1) and commence rotation.

**B.6** Increase the temperature at a maximum of 2 °C/min to  $(60 \pm 2)$  °C and continue to run for a further 30 min at (60  $\pm$  2) °C.

Stop the machine, remove the canisters and empty the contents into beakers keeping each test **B.7** specimen in a separate beaker. Rinse each test specimen three times, in beakers, in grade 3 water (4.2) at  $(40 \pm 3)$  °C for 1 min periods with occasional stirring or hand squeezing.

**B.8** Squeeze the test specimen by hand to remove the excess water.

Dry the specimen by hand pressing flat between filter papers to remove excess water, then lay the **B.9** specimen flat on a drying rack or screen not exceeding 60 °CKEVIEV

**B.10** Allow the specimen to condition at  $(65 \pm 2)$  % RH and  $(21 \pm 1)$  °C for 1 h before evaluating.

B.11 Assess the change in colour of the specimen using the grey scale (4.3) or instrumentally with reference to the original fabric. (See also ISO 105-A02; ISO 105-A05; ISO 105-J01; ISO 105-J03.)

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