

ICS 59.080.30

ISBN 0-626-17865-7

SANS 5089:1977

Edition 1 and nat. amdt 1

ISO 5089:1977

Edition 1

Any reference to SABS ISO 5089 is deemed
to be a reference to this standard
(Government Notice No. 1373 of 8 November 2002)

SOUTH AFRICAN NATIONAL STANDARD

Textiles — Preparation of laboratory test samples and test specimens for chemical testing

This national standard is the identical implementation of ISO 5089:1977 and is adopted with the permission of the International Organization for Standardization.

Published by Standards South Africa
1 dr lategan road groenkloof ☒ private bag x191 pretoria 0001
tel: 012 428 7911 fax: 012 344 1568 international code + 27 12
www.stansa.co.za
© Standards South Africa

standards
SouthAfrica
(a division of SABS)

SANS 5089:1977

Edition 1 and nat. amdt 1

ISO 5089:1977

Edition 1

Table of changes

Change No.	Date	Scope
Nat. amdt 1	2006	Amended to change the designation from SABS to SANS, with no technical changes.

Abstract

Specifies methods of obtaining laboratory test samples of textile materials from laboratory bulk samples taken from a bulk source, and gives general directions for the preparation of test specimens of convenient size for chemical tests.

Keywords

chemical analysis and testing, sampling, specimen preparation, testing, textile fibres, textiles, woven fabrics, yarn.

National foreword

This South African standard was approved by National Committee StanSA SC 5110.04C, *Textile test methods – Chemical analysis*, in accordance with procedures of Standards South Africa, in compliance with annex 3 of the WTO/TBT agreement.

This SANS edition is technically identical to SABS ISO 5089:1977.

INTERNATIONAL STANDARD



5089

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Textiles — Preparation of laboratory test samples and test specimens for chemical testing

Textiles — Préparation des échantillons réduits de laboratoire et des éprouvettes en vue des essais chimiques

First edition — 1977-10-15

UDC 677.014.2 : 620.113

Ref. No. ISO 5089-1977 (E)

Descriptors : textiles, fibres, yarns, fabrics, sampling, test specimens, chemical tests.

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5089 was developed by Technical Committee ISO/TC 38, *Textiles*, and was circulated to the member bodies in December 1976.

It has been approved by the member bodies of the following countries :

Belgium	France	Romania
Bulgaria	Germany	South Africa, Rep. of
Canada	India	Spain
Chile	Israel	Sweden
Czechoslovakia	Korea, Rep. of	Switzerland
Denmark	Mexico	United Kingdom
Egypt, Arab Rep. of	Netherlands	U.S.S.R.
Finland	New Zealand	Yugoslavia

The member body of the following country expressed disapproval of the document on technical grounds :

Italy

Textiles – Preparation of laboratory test samples and test specimens for chemical testing

0 INTRODUCTION

In the methods given in this International Standard, the laboratory test samples are obtained by the combination of numerous small portions each drawn from a different part of the laboratory bulk sample. Therefore, any results obtained on test specimens from these samples will estimate the mean level in the laboratory bulk sample but will not indicate the variability of level from portion to portion of the laboratory bulk sample. Consequently it is appropriate to use this method in cases where it is desired to estimate the bulk composition, for example the proportions of different fibres in a blend, but it is not appropriate in cases where variability is important, for example in the determination of pH where the local value is significant, or in the determination of fungicides, where a high value in one area of the material does not compensate for a low value elsewhere. Nor may it be appropriate for use in determination of commercial mass values.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies methods of obtaining laboratory test samples of textile materials from laboratory bulk samples taken from a bulk source, and gives general directions for the preparation of test specimens of convenient size for chemical tests.

No provision for sampling from the bulk source is described since it is assumed that the laboratory bulk sample has been selected by a suitable procedure and is representative of the bulk source.

2 DEFINITIONS

2.1 bulk source : That quantity of material which is to be judged on the basis of one series of test results. This may comprise, for example, all the material in one delivery of cloth; all the cloth woven from a particular beam; a consignment of yarn; a bale or a group of bales of raw fibre.

2.2 laboratory bulk sample : That portion of the bulk source taken to be representative of the whole. The size and nature of the laboratory bulk sample should be sufficient to overcome adequately the variability of the bulk source and to facilitate ease of handling in the laboratory.

2.3 laboratory test sample : That portion of the laboratory bulk sample from which specimens are taken for testing. The size and nature of the laboratory test sample should be sufficient to overcome adequately the variability of the laboratory bulk sample.

2.4 test specimen : The portion of material required to give an individual test result.

3 PRINCIPLE

The laboratory test sample is taken so that it is representative of the laboratory bulk sample. The test specimens are taken from the laboratory test sample in such a way that each of them is representative of the laboratory test sample.

4 SAMPLING FROM LOOSE FIBRES

4.1 Non-oriented fibres

If the laboratory bulk sample consists of less than 5 kg of loose fibre, spread it out in an even layer. Obtain the laboratory test sample by taking at random a minimum of 100 tufts of approximately equal size, the total mass sufficient to give a laboratory test sample of required size.

If the laboratory bulk sample is greater than 5 kg, divide it into a number of equal portions, and take an equal number of tufts of suitable mass from each portion such that the total number from all portions exceeds 100.

Pretreat the laboratory test sample if required by the test method to be used. From the laboratory test sample remove at random, using forceps, small tufts of approximately equal mass to give a test specimen of the mass required.

4.2 Oriented fibres (card webs, slivers, rovings)

From randomly selected parts of the laboratory bulk sample cut not less than ten cross-sections each of mass approximately 1,0 g. After applying pretreatment if necessary, lay the cross-sections together and obtain the test specimen by cutting through them so as to take a portion of each of the ten lengths.