

ISBN 978-0-626-27801-4

**SANS 50743:1994**

Edition 1 and nat. amdt 1

**EN 743:1994**

Edition 1

Any reference to SABS EN 743 is deemed  
to be a reference to this standard  
(Government Notice No. 1373 of 8 November 2002)

## **SOUTH AFRICAN NATIONAL STANDARD**

# **Plastics piping and ducting systems— Thermoplastics pipes — Determination of the longitudinal reversion**

This national standard is the identical implementation of EN 743:1994 and is adopted with the permission of CEN, rue de Stassart 36, B-1050 Brussels.

Published by SABS Standards Division  
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**SANS 50743:1994**

Edition 1 and nat. amdt 1

**EN 743:1994**

Edition 1

**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>
Nat. amdt 1	2007	Amended to change the designation from SABS to SANS, with no technical changes.

**National foreword**

This South African standard was approved by National Committee SABS SC 138H, *Water and sanitation – Equipment and systems – Plastics pipes and fittings*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This standard was published in March 2007. This SANS edition is technically identical to the first SABS edition (SABS EN 743:1994).

**Reaffirmed and reprinted in July 2012.  
This standard will be reviewed every five years  
and be reaffirmed, amended, revised or withdrawn.**

EUROPEAN STANDARD

EN 743

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 1994

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UDC 621.643.2-036.073:620.1:539.37

Descriptors: Plastics pipes, plastic tubes, thermoplastic resins, high temperature tests, determination, dimensional stability, reversion

English version

**Plastics piping and ducting systems -  
Thermoplastics pipes - Determination of the  
longitudinal reversion**

Systèmes de canalisations et de gaines  
plastiques - Tubes thermoplastiques -  
Détermination du retrait longitudinal à chaud

Kunststoff-Rohrleitungs- und Schutzrohrsysteme  
- Rohre aus Thermoplasten - Bestimmung des  
Längsschrumpfes

This European Standard was approved by CEN on 1994-01-10. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

## Foreword

This standard was prepared by CEN/TC 155 "Plastics piping systems and ducting systems". It received approval from the CEN members on 1993-09-16

This standard is based on the International Standard ISO 3478:1975 "Polypropylene (PP) pipes - Determination of longitudinal reversion" prepared by the International Organization for Standardization (ISO). It is a modification of ISO 3478 for reasons of applicability to other plastics materials and/or other test conditions and alignment with texts of other standards on test methods.

The provisions of the following international standards or draft international standards have also been taken into account:

ISO 2505:1981	Unplasticized polyvinyl chloride (PVC) pipes - Longitudinal reversion - Test methods and specification
ISO 2506:1981	Polyethylene (PE) pipes - Longitudinal reversion - Test methods and specification
ISO/DP 4438	Chlorinated polyvinyl chloride (PVC-C) pipes - Determination of longitudinal reversion

The modifications are:

- no material is mentioned;
- test parameters, except those common to all thermoplastics, are omitted;
- no material-dependent or performance requirements are given;
- editorial changes have been introduced.

The material-dependent parameters and/or performance requirements are incorporated in the System Standard(s) concerned.

No existing European Standard is superseded by this standard.

This standard is one of a series of standards on test methods which support System Standards for plastics piping systems and ducting systems.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 1994, and conflicting national standards shall be withdrawn at the latest by July 1994.

The Standard was approved and in accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

## 1 Scope

This standard specifies two methods for determining the longitudinal reversion of cylindrical thermoplastics pipes with smooth surfaces.

It provides test methods to be carried out in liquid (method A) or in air (method B).

## 2 Method A: Determination of reversion using a liquid bath

### 2.1 Principle

A pipe of given length is immersed in an inert liquid maintained at a specified temperature for a specified duration of immersion (see note).

A marked length on this pipe is measured under identical conditions before and after immersion.

The reversion is calculated as the percentage change in length in relation to the initial length.

*NOTE: It is assumed that the following test parameters are set by the standard making reference to this standard:*

- a) the test temperature,  $T_R$  (see 2.2.1 and 2.5.2);*
- b) the length of the test piece (see 2.3);*
- c) the duration of the immersion, with limiting values (see 2.5.4);*