

# Steel strip sheaths for prestressing tendons — Test methods

## Part 6. Determination of leaktightness (determination of water loss)

The European Standard EN 524-6 : 1997 has the status of a  
British Standard

ICS 77.140.75; 91.080.40

## National foreword

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### Summary of pages

This document comprises a front cover, an inside front cover, an EN title page, pages 2 to 4, an inside back cover and a back cover.

### Amendments issued since publication

Amd. No.	Date	Text affected

This British Standard, having been prepared under the direction of the Sector Board for Building and Civil Engineering, was published under the authority of the Standards Board and comes into effect on 15 November 1997

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ISBN 0 580 28667 3

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ICS 77.140.75; 91.080.40

Descriptors: Prestressed concretes, tubes, sheathing, prestressing steels, classifications, specification, verification, marking

English version

## Steel strip sheaths for prestressing tendons — Test methods — Part 6: Determination of leaktightness (determination of water loss)

Gaines en feuillard d'acier pour câbles de  
précontrainte — Méthodes d'essai —  
Partie 6: Détermination de l'étanchéité  
(détermination des pertes en eau)

Hüllrohre aus Bandstahl für Spannglieder —  
Prüfverfahren —  
Teil 6: Bestimmung der Dichtheit (Bestimmung des  
Wasserverlustes)

This European Standard was approved by CEN on 1997-01-27. 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.

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**CEN**

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

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

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 104, Concrete (performance, production, placing and compliance criteria), the Secretariat of which is held by DIN.

This standard is a part of the series EN 524 *Sheaths for prestressing tendons — Test methods* which additionally comprises the following Parts

- Part 1 *Determination of shape and dimensions*
- Part 2 *Determination of flexural behaviour*
- Part 3 *To-and-fro bending test*
- Part 4 *Determination of lateral load resistance*
- Part 5 *Determination of tensile load resistance*

These European Standards apply to EN 523 *Steel strip sheaths for prestressing tendons — Terminology, requirements, quality control*.

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 September 1997, and conflicting national standards shall be withdrawn at the latest by September 1997.

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## Contents

	Page
Foreword	2
<b>1</b> Scope	3
<b>2</b> Normative references	3
<b>3</b> Test procedure when quality control of finished sheaths is carried out	3
<b>4</b> Test procedure for use in production control	3

## 1 Scope

This European Standard specifies the procedure for determining the leaktightness of sheaths for prestressing tendons which comply with EN 523.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- EN 523 : 1997 *Steel strip sheaths for prestressing tendons — Terminology, requirements, quality control*
- EN 524-3 *Steel strip sheaths for prestressing tendons — Test methods — Part 3: To-and-fro bending test*

## 3 Test procedure when quality control of finished sheaths is carried out

The test shall be conducted on a 1100 mm long specimen which has previously been subjected to the tests required by 5.1.6 to 5.1.8 of EN 523. The specimen shall be filled with water after which it shall be subjected to a constant internal pressure of 0,5 bar (50 kPa) by adequate equipment (e.g. by sealing the top of the specimen and inducing air pressure). The water loss which occurs within a period of 5 min shall be measured with an accuracy of 3 % and recorded to the nearest 0,1 %.

NOTE. A method for determining the percentage water loss consists e.g. of measuring the height of water from the top of the specimen before applying and after releasing the pressure and relating this change in distance to the initial filling height. The distance measurement should have an accuracy of at least 0,5 mm.

## 4 Test procedure for use in production control

For the routine checks of the running production the 1100 mm long specimen has to be subjected only to the to-and-fro bending procedure given in EN 524-3 before carrying out the leaktightness test described in the foregoing clause 3.

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