

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

This British Standard is the English language version of EN 524-6 : 1997. The UK participation in its preparation was entrusted by Technical Committee B/525, Building and civil engineering structures, to Subcommittee B/525/2, Structural use of concrete, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible 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 committee can be obtained on request to its secretary.

Cross-references

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

Compliance with a British Standard does not of itself confer immunity from legal obligations.

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

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.

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.

This European Standard exists 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 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.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of 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 and the United Kingdom.

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	3
3 Test procedure when quality control of finished sheaths is carried out	3
4 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.

BSI — British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the technical committee responsible, the identity of which can be found on the inside front cover. Tel: 020 8996 9000. Fax: 020 8996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services. Tel: 020 8996 9001. Fax: 020 8996 7001.

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

Information on standards

BSI provides a wide range of information on national, European and international standards through its Library and its Technical Help to Exporters Service. Various BSI electronic information services are also available which give details on all its products and services. Contact the Information Centre. Tel: 020 8996 7111. Fax: 020 8996 7048.

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Membership Administration. Tel: 020 8996 7002. Fax: 020 8996 7001.

Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI.

This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

If permission is granted, the terms may include royalty payments or a licensing agreement. Details and advice can be obtained from the Copyright Manager. Tel: 020 8996 7070.