

AS/NZS 4255.1:1994

Australian/New Zealand Standard

Security seals

Part 1: Classification

STANDARDS AUSTRALIA 

STANDARDS NEW ZEALAND



Documents

Document Sharing Hub

AS/NZS 4255.1:1994

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME/69, Security Seals. It was approved on behalf of the Council of Standards Australia on 9 September 1994 and on behalf of the Council of Standards New Zealand on 19 September 1994. It was published on 14 November 1994.

The following interests are represented on Committee ME/69:

Association of Employers of Waterside Labour
Australia Post
Australian Chamber of Shipping
Australian Customs Service
Australian National Maritime Association
Chartered Institute of Transport in Australia
International Cargo Handling Co-ordination Association
Master Locksmiths Association of Australasia
New Zealand Security Industry Association
Railways of Australia Committee

Additional interests participating in preparation of Standard:

Australian Security Intelligence Organisation
N.S.W. Police Service

Review of Standards. To keep abreast of progress in industry, Joint Australian/New Zealand Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Joint Standards and related publications will be found in the Standards Australia and Standards New Zealand Catalogue of Publications; this information is supplemented each month by the magazines 'The Australian Standard' and 'Standards New Zealand', which subscribing members receive, and which give details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Joint Standards, addressed to the head office of either Standards Australia or Standards New Zealand, are welcomed. Notification of any inaccuracy or ambiguity found in a Joint Australian/New Zealand Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS/NZS 4255.1:1994

Australian/New Zealand Standard

Security seals

Part 1: Classification

First published as Joint Standard AS/NZS 4255.1:1994.

PUBLISHED JOINTLY BY:

STANDARDS AUSTRALIA
1 The Crescent,
Homebush NSW 2140 Australia

STANDARDS NEW ZEALAND
Level 10, Standards House,
155 The Terrace,
Wellington 6001 New Zealand

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/69 on Security Seals.

The Standard is based on ASTM F 832-90, *Classification for Security Seals*, and ASTM F 1157-90, *Practice for Classifying the Relative Performance of the Physical Properties of Security Seals*.

This Standard provides a designation and classification system for security seals and is intended as a guide for the selection of security seals for specific applications. It is not intended to inhibit innovation or the development of new types of seals.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

CONTENTS

	Page
1 SCOPE	3
2 OBJECTIVE	3
3 APPLICATION	3
4 REFERENCED DOCUMENTS	3
5 DEFINITIONS	3
6 CLASSIFICATION	4
7 TESTING	9
APPENDIX A METHOD FOR DETERMINING PHYSICAL PROPERTIES OF SEALS	11

© Copyright – STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Users of Standards are reminded that copyright subsists in all Standards Australia and Standards New Zealand publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia or Standards New Zealand may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia or Standards New Zealand. Permission may be conditional on an appropriate royalty payment. Australian requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia. New Zealand requests should be directed to Standards New Zealand.

Up to 10 percent of the technical content pages of a Standard may be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia or Standards New Zealand.

Inclusion of copyright material in computer software programs is also permitted without royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia or Standards New Zealand at any time.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Security seals****Part 1: Classification**

1 SCOPE This Standard specifies a classification system for security seals, including general electronic types. Special purpose seals such as fibre optics and sophisticated electronic types are not covered by this Standard.

NOTE: Guidance on the use of security seals is provided in AS/NZS 4255.2.

2 OBJECTIVE The objective of this Standard is to provide manufacturers, purchasers and users with a classification system for security seals in order to provide a guide for the selection of seals for specific applications.

3 APPLICATION It is intended that this Standard be applied to currently available seals. It is not intended to inhibit innovation or the development of new types of seals, or the use of seals that are not defined within the document.

The correct use of seals is addressed in AS 4255.2.

4 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1327 Standard environments for conditioning and testing plastics materials

AS/NZS

4255 Security seals

4255.2 Part 2: Use

ASTM

F883 Performance Specification for Padlocks

5 DEFINITIONS For the purpose of this Standard, the definitions below apply. Additional terminology is contained in Table 6.1.

5.1 Barrier seal—a mechanical seal designed with similar deterrent characteristics to equivalent grades of padlocks. The seal has a degree of physical strength and requires the use of suitable hand tools to remove it.

5.2 Bolt seal—a barrier seal consisting of a metal rod, threaded or unthreaded, with a formed head that can be secured to prevent undetected removal (e.g. by use of a separate locking mechanism or by bending a threaded rod to distort the thread).

5.3 Cable seal—a barrier seal consisting of a cable and a locking mechanism.

NOTE: One-piece seals have a locking or seizing mechanism permanently attached to one end of the cable. Two-piece cable seals have a separate locking mechanism that slips onto the cable or prefabricated end.

5.4 Cinch seal—see pulltight seal, Clause 5.10.

5.5 Electronic seal—a seal, of either barrier or indicative grade, which indicates data by electronic means when the seal is opened or closed.

5.6 Indicative seal—a security seal that can be easily broken by hand or by a simple cutting tool such as scissors or wire cutters.

5.7 Label seal—an indicative frangible seal, consisting of paper or plastic backed with adhesive, that will tear when removal or opening is attempted.

5.8 Normative—an Appendix which is essential to the understanding or implementation of the Standard.

5.9 Padlock seal—a barrier seal consisting of a locking body with a shackle attached (e.g. wire shackle padlock with metal or plastic body, plastic padlock, and keyless padlock).

5.10 Pulltight seal—an indicative seal consisting of a thin strip of material, serrated or non-serrated, with a locking mechanism attached to one end through which the free end is pulled and drawn up to the necessary tightness.

NOTE: Pulltight seals may have multiple lock positions. These seals are generally made of synthetic materials (e.g. nylon or other plastic).

5.11 Scored seal—an indicative seal containing a metal strip that is scored perpendicular to the length of the strip and is applied by passing the strip through the locking fixture and bending the strip at the score mark.

NOTE: Removal of the seal requires bending at the score mark and results in breakage of the seal.

5.12 Security seal—a device which can be fitted to various types of containers to indicate that possible unauthorized entry has occurred since the act of sealing took place. The device which is manufactured or processed on site can incorporate a unique recordable identity such as a serial number.

5.13 Shall—indicates that a statement is mandatory.

5.14 Should—indicates a recommendation.

5.15 Strap seal (strip seal)—a security seal (barrier or indicative) consisting of a metal or plastic strap that is secured to form a loop by inserting one end into or through a locking mechanism that is fixed to the other end of the strap (e.g. box and ball end seals).

5.16 Twist seal—a barrier seal consisting of a rod or wire that is inserted through the locking fixture and twisted or distorted around itself.

5.17 Wire seal—an indicative seal consisting of a length of wire secured in a loop by some type of seizing device (e.g. crimp wire, fold wire, cup wire).

6 CLASSIFICATION For the purpose of this Standard, security seals are classified by security category/grade application/removal type and physical property class.

The seal classification is expressed by the following formatted code:

Security category/Grade—Type—Class

where

The security category and grade are as specified in Table 6.1.

The applications and removal type are specified in Table 6.2.

The physical property class is as indicated as follows:

$L_1 L_2 L_3 L_4 L_5 L_6$

where

L_1 = a letter A, B, C, D, E or F, to indicate the tensile strength as specified by Clause 7.1

L_2 = a letter A, B, C, D, E or F, to indicate the shear strength as specified by Clause 7.2