

AS/NZS 2721:1996

IWTO-7-92

AS/NZS 2721

Australian/New Zealand Standard[®]

**Wool—Subsampling staples from
grab samples**

[IWTO title: Sub-sampling staples from grab samples]

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The following interests are represented on Committee TX/12:

Australian Council of Wool Exporters
 Australian Wool Exchange
 Australian Wool Processors Council
 Australian Wool Research and Promotion Organisation
 CSIRO—Division of Wool Technology
 Department of Defence, Australia
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TX/12 on Wool to supersede AS 2721—1984. It is identical with and has been reproduced from IWTO-7-92, *Sub-sampling staples from grab samples*, which is largely based on AS 2721—1984, *Wool—Method of subsampling staples from grab samples*.

The objective of this Standard is to provide the wool industry with a method for drawing and preparing sub-samples of greasy wool from grab samples.

As this Standard is reproduced from an international publication, the following applies:

- (a) Its number appears on the cover and title page, while the international publication number appears only on the cover.
- (b) *Substitute* either 'grab' or 'grabs' for the terms 'grab sample' or 'grab samples', as appropriate, wherever they appear.
- (c) *Substitute* either 'grab sample' or 'grab samples' for the terms 'sample' or 'samples' wherever they appear.
- (d) **Page 11, Appendix A, Clause A3, Item (a)** *delete* the word 'place' and *insert* the word 'plate'.
- (e) *Insert* the word 'normative' beneath the title of Appendix A and Appendix B, and the word 'informative' beneath the title of Appendix C.

The references to IWTO-38 should be replaced by the equivalent Joint Australian/New Zealand Standard as follows:

<i>Reference to IWTO Standard</i>		<i>Joint Australian/New Zealand Standard</i>	
IWTO		AS/NZS	
38	Method for grab sampling greasy wool from bales	1363	Wool—Grab sampling—Greasy wool
		1363.1	Part 1: Method for grab sampling greasy wool from bales

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Originated in Australia as AS 2721—1984.
Jointly revised and designated AS/NZS 2721:1996.

AUSTRALIAN/NEW ZEALAND STANDARD

Wool—Subsampling staples from grab samples

0. Brief History

The following details the development of this standard:

- Originally provided as an Australian Standard AS 2721*.
- Prepared as a Test Method Under Examination by the Raw Wool Length Working Group of the Technical Committee.
- Adopted by the Standardisation Committee in January 1986 as a TME.
- Adopted by the Standardisation Committee and Technical Committee as a full Test Method in December 1991.
- Adopted by the Statutes and Agreements Committee in April 1992.

1. Scope

This standard sets out a method of subsampling of staples from a grab sample or sample of greasy wool drawn in accordance with IWTO-38. Apparatus for selecting representative staples from a grab sample or sample, and the manner of selection are described in Appendices A and B. Appendix C is provided as a guide to staple selection on samples other than grab samples drawn in accordance with IWTO-38.

The subsampling method is applicable to the selection of staples suitable for staple measurements of greasy wool which is suitable for combing. These measurements are normally used to estimate processing performance with such formulae as were developed by the TEAM project for a large proportion of combing length wools. There are, however, certain cases where the average fibre loss and processing performance may be different, e.g. very short combing wools, heavy burry wools, lambs wools, wools containing dermatitis, locks, plucked wools, flyblown wool, Test House core samples, slipe wools and dead wools (i.e. wools removed from the carcasses of sheep which have died other than by slaughter).

2. Principle

Material comprising a sample or grab sample of greasy wool is subjected to a systematic procedure which includes masking the material under a plate. Individual staples, or tufts of staples, are drawn through holes in the plate. If tufts are drawn, then one staple is obtained from each tuft. The staples are then prepared according to specified procedures to ensure that they are suitable for measurement.

*The preparation of this IWTO Test Method was greatly facilitated by the prior standardisation of subsampling in Australia; the present test is largely based on the Australian Standard (AS2721-1984). All photographs and diagrams are reprinted from this Australian Standard with the permission of the Standards Association of Australia.

3. Definitions

For the purpose of this standard, the following definitions apply:

3.1 Greasy Wool

Wool from sheep or wool shorn from sheepskin which has not been scoured, solvent degreased or carbonised.

3.2 Grab sample

The greasy wool drawn from a bale by a single operation of a grab machine in accordance with IWTO-38.

3.3 Sample

All the grab samples taken from a lot. If taken in accordance with the procedures given in IWTO-38, the sample may be assumed to be representative of the lot for staple measurements.

3.4 Second Cut

A staple resulting from a second attempt to shear wool from any one region on a sheep. A second cut differs from a normal staple in that both ends are severed and no tip end is evident. In staple length measurement second cuts are considered as staples.

3.5 Staple

A well-defined bundle of fibres which has been removed from a mass of greasy wool as a unit. In staple length measurement, staples include second cuts.



Fig. 1. Tuft of Staples

3.6 Tuft of staples

A bundle of wool consisting of approximately 1 to 20 staples drawn in one action (see Fig. 1).

4. Apparatus

4.1 Mechanical tuft subsampling machine

A device used to mechanically obtain representative tufts of samples from a sample. A suitable device is described in Appendix A.

4.2 Sampling plate

A device used to obtain representative staples manually from a sample or a grab sample. Suitable devices are described in Appendix B.

4.3 Staple tray

A container which enables individual staples to be stored and transported prior to measurement. A suitable tray is shown in Figure 2.

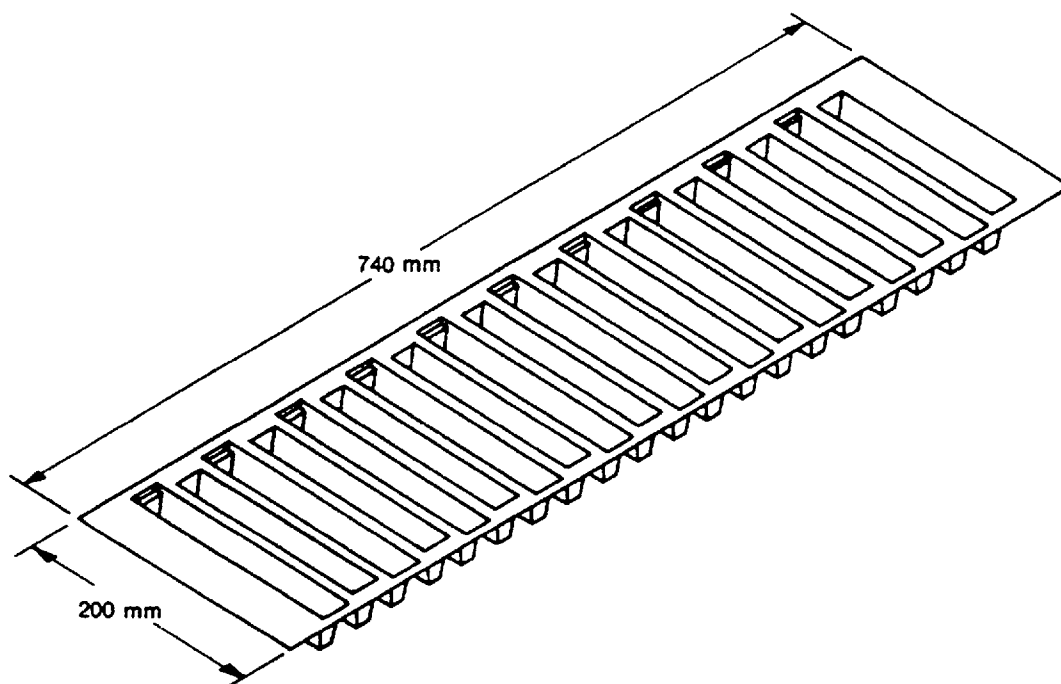


Fig. 2. Staple Tray