

Australian Standard™

AS 4878.3

Methods of test for coated fabrics

Method 3: Determination of total mass per unit area, mass per unit area of coating and mass per unit area of substrate

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TX-005, Coated Fabrics as an Australian Standard to supersede AS 1441.2—1973, *Methods of test for coated fabrics, Method 2: Determination of mass per unit area and coating mass per unit area* which was withdrawn in 1997.

The Standard is identical with and has been reproduced from ISO 2286-2:1998, *Rubber- or plastics-coated fabrics—Determination of roll characteristics—Part 2: Methods for determination of total mass per unit area, mass per unit area of coating and mass per unit area of substrate*.

The objective of this Standard is to provide manufacturers and testing bodies with suitable methods for the determination of the total mass per unit area, mass per unit area of coating and mass per unit area of substrate of rubber- or plastics-coated fabrics.

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

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

- (a) In the source text, ‘this part of ISO 2286’ should read ‘this Australian Standard’.
- (b) A full point should be substituted for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
ISO	AS
2231 Rubber- or plastics-coated fabrics— Standard atmospheres for conditioning and testing	—

INTRODUCTION

The total mass per unit area of a material, the mass per unit area of the substrate cloth and the mass per unit area of the coating are quantities which define the basic quality of a coated fabric and determine many of its physical properties. The substrate cloth mass determined by these methods does not necessarily represent the mass of the substrate cloth in the uncoated state. For example, in the case of coated fabrics in which a bonding agent has been used, the substrate cloth mass determined may be substantially higher than the uncoated mass because the prescribed treatment has not removed the entire coating. This will be particularly so in cases where the substrate cloth is made from multifilament or spun-fibre yarns. Dimensional changes in the substrate cloth during processing may also occur.

WARNING – Persons using this part of ISO 2286 should be familiar with normal laboratory practice. This part of ISO 2286 does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This part of ISO 2286 describes methods of determining the total mass per unit area, the mass per unit area of the coating and the mass per unit area of the substrate cloth of a rubber- or plastics-coated fabric. Methods for removing coatings of specific compositions are described in annex A.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 2286. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2286 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2231:1989, *Rubber- or plastics-coated fabrics – Standard atmospheres for conditioning and testing.*

3 Method A: Determination of total mass per unit area

3.1 Apparatus

3.1.1 Balance, accurate to ± 2 mg, with a capacity such that readings remain within 10 % to 90 % of maximum when the balance is used for this method.

3.1.2 Means of maintaining an atmosphere with a relative humidity not greater than 10 % and a temperature of $65\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$.

NOTE – Air at $20\text{ }^{\circ}\text{C}$ and 65 % relative humidity, when heated at constant pressure to $65\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$, will have a relative humidity of approximately 5 %. Higher temperatures can lead to changes in some coatings.

3.1.3 Cutter, capable of cutting, from the sample of coated fabric, a test piece of area $100\text{ cm}^2 \pm 1\text{ cm}^2$.

NOTE – It has been found convenient to use a circular cutter for this purpose, but square or rectangular test pieces may be used provided they are within the accuracy specified above.