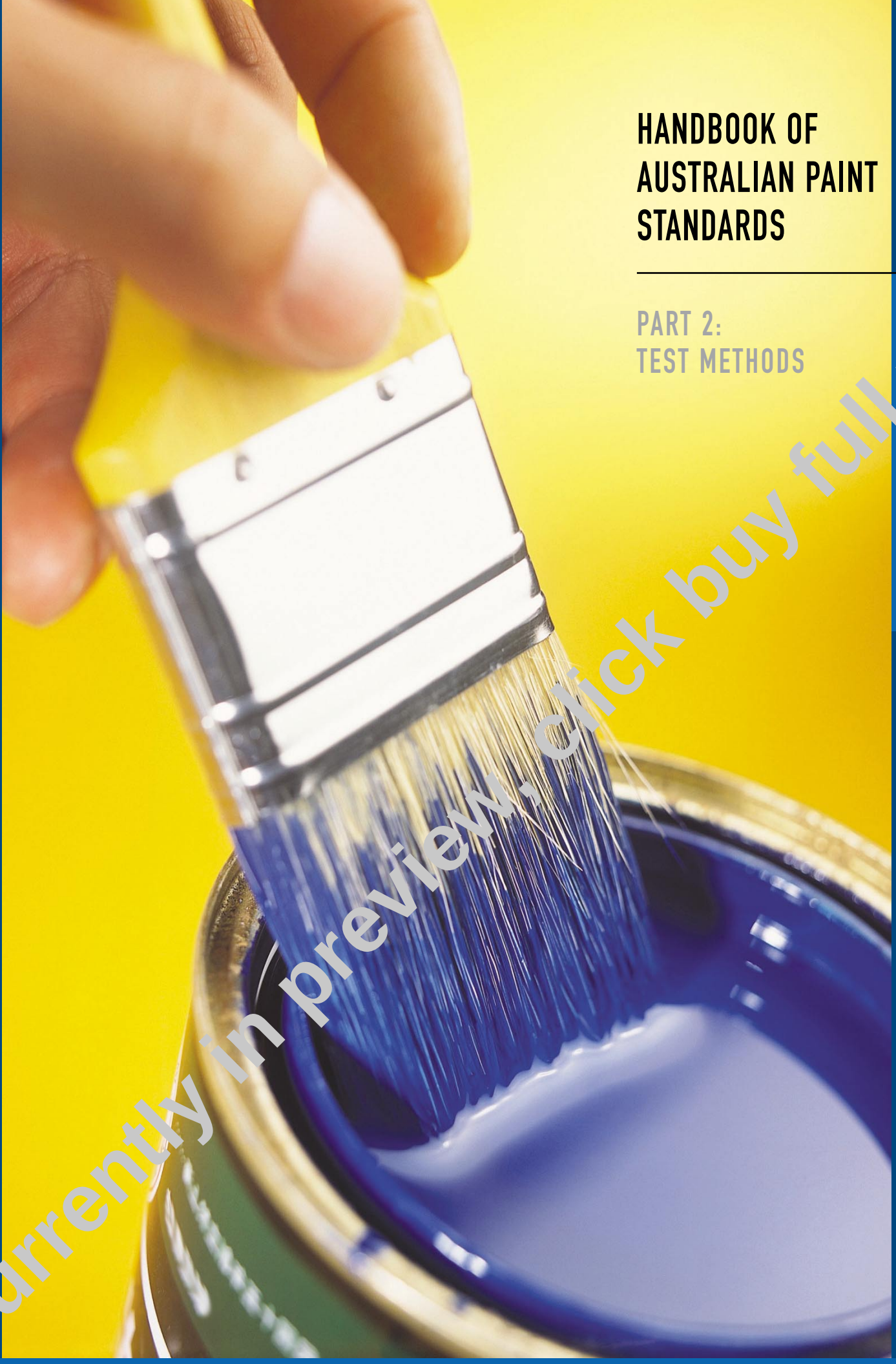

HANDBOOK OF AUSTRALIAN PAINT STANDARDS

PART 2: TEST METHODS

STANDARDS AUSTRALIA

Handbook

Handbook of Australian Paint Standards

Part 2: Test methods

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PREFACE

This Handbook was prepared by Standards Australia to provide practitioners in the paint industry with a compact reference containing most Australian Standards and Australian/New Zealand Standards dealing with paints and related materials.

The Handbook, in four convenient volumes, collects together almost 190 Australian and Australian/New Zealand Standards dealing with paint application, paint testing and paint products. The *Handbook of Australian Paint Standards* is divided into a number of parts including:

Part 1: General
Part 2: Test methods
Part 3: Industrial paints
Part 4: Architectural paints

This Part 2 contains the 100 test methods constituting the AS and AS/NZS 1580 series and those of the AS 3894 series of site test methods for paints and coatings. Each of the current Standards has been reproduced and, where necessary, updated to incorporate amendments issued since the original publication of the document.

At the time of preparation of this Handbook, several of the Standards included in it were under consideration for possible revision and may be revised with the next 12 months.

CONTENTS

Australian/New Zealand Standard™

Paints and related materials—Methods of test

Method 101.1: Conditions of test—Temperature, humidity and airflow control

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/3, Paints and Related Materials to supersede AS 1580.101.1—1986.

METHOD

1 SCOPE This Standard sets out the requirement for determining the drying time of paint, wherein temperature, humidity and airflow are controlled.

2 REFERENCED DOCUMENT The following document is referenced in tracing the basis of this Standard:

JONES, K.L., A Method for Achieving Standard Drying Conditions for Paints. *Australian OCCA Proceedings and News*, vol. 1 no. 6 (June 1964) pp 7 to 13.

3 CONDITIONS

3.1 General Testing may be carried out under routine conditions, except in cases of dispute when the use of referee conditions is mandatory.

3.2 Test conditions Conditions shall be in accordance with Table 1.

TABLE 1

TEST CONDITIONS—DRYING OF PAINTS

Environmental factor	Test conditions	
	Referee	Routine
Temperature	25 ±1°C	23 ±3°C
Relative humidity	50 ±5 percent	60 ±15 percent
Lighting	>5001x and not in direct sunlight	
Air speed (at panel location)	0.3 to 0.5 m/s	Well-ventilated room (see Note 1)
Air purity	Free from dust, high concentrations of organic solvents and other fouling vapours (see Note 2)	

NOTES:

1 Avoid placing panels directly in the path of strong draughts.

2 The air should be filtered and reasonably free from dust. Freedom from high concentrations of fouling vapours may be achieved by mechanically supplying conditioned air at a rate of at least six air changes per hour.

4 RECORDING OF TEMPERATURE AND HUMIDITY Temperature and humidity of the test environment shall be continuously recorded on appropriate instruments throughout the test/drying period.

5 CONDITIONING OF APPARATUS Apparatus shall be brought to thermal equilibrium with the specified environment before use and shall be so maintained throughout the test period. A conditioning period of at least 4 h is recommended.

Australian Standard™

Paints and related materials—Methods of test

Method 101.3: Standard procedure for stoving

1 SCOPE

This Standard sets out a method for the drying or curing of painted panels by stoving.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1580	Paints and related materials—Methods of test
1580.102.1	Method 102.1: Sampling procedure
1580.103.1	Method 103.1: Examination and preparation of samples for testing
1681	Safety requirements for electrically heated Type 1 ovens in which flammable volatiles can occur
2831	Thermometers—Solid stem—Long and short—For precision use

3 PRINCIPLE

A test paint is applied to a substrate and oven dried or cured according to the appropriate product specification.

4 APPARATUS

4.1 Oven

Fan-forced oven, ventilated and capable of maintaining the required temperature to within ±3%.

4.2 Thermometer

Thermometer capable of recording the temperature of the test environment to an accuracy of at least ±0.5°C up to 150°C and ±1°C for temperatures above 150°C.

NOTE: AS 2831 specifies thermometers that satisfy this requirement.

4.3 Timer

An electronic timer or mechanical timing device, accurate to at least 0.1% over a 5 min period.

4.4 Panel

Panels of size and material specified for the test.

NOTE: The selection of test panel and the stoving conditions need to take account of the soaking time required for the particular substrate.

5 OCCUPATIONAL HEALTH AND SAFETY GUIDANCE

The following criteria apply:

(a) Precautions for use, as outlined in supplier's Materials Safety Data Sheet (MSDS), shall be followed.