

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 1580.405.1:1996

Paints and related materials—Methods of test

Method 405.1: Determination of pencil hardness of paint film

RECONFIRMATION NOTICE

Technical Committee CH-003 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 30 May 2013.

Approved for reconfirmation in New Zealand on behalf of the Standards Council of New Zealand on 26 August 2013.

The following are represented on Technical Committee CH-003:

Australasian Corrosion Association
Australian Paint Approval Scheme
Australian Paint Manufacturers' Federation
Australian Pipeline Industry Association
Institution of Professional Engineers New Zealand
Master Painters New Zealand Association
Water Corporation Western Australia

NOTES

Australian/New Zealand Standard®

Paints and related materials—Methods of test

Method 405.1: Determination of pencil hardness of paint film

PREFACE

This Standard was prepared for the Joint Australian/New Zealand Standards Committee CH/3, on Paints and Related Materials, to supersede the 1978 edition of AS 1580.405.1.

This Standard is essentially the same as the 1978 edition but has been reformatted for clarity. However, the marking procedure has been reversed to minimize damage to the coating by using progressively harder leads instead of progressively softer leads.

METHOD

1 SCOPE This method describes a procedure that is intended for use in determining the relative hardness of a paint film in terms of pencil leads of designated hardness.

NOTE: When used as a basis for purchase agreement, this method will achieve maximum validity if a given set of referee pencils is agreed upon between the purchaser and the vendor.

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

AS/NZS

1580 Paints and related materials—Methods of test

1580.101.4 Method 101.4: Conditions of test, temperature controlled

1580.408.2 Method 408.2: Adhesion—Knife test

3 PRINCIPLE The hardness of the painted surface is determined by marking it with pencil leads of various grades, e.g. 3B, HB, 2H, and then examining the coating for the presence or absence of damage.

4 APPARATUS

4.1 Pencils

4.1.1 Leads A set of pencil leads with a diameter of 2 mm to fit a clutch-type holder. The pencil leads should be Staedler-Mars, unless otherwise specified. The following leads shall be included in the set:

6B, 5B, 4B, 3B, 2B, B, HB, F, H, 2H, 3H, 4H, 5H, 6H, 7H and 8H (6B being the softest and 8H the hardest). Each lead shall be scratched by the lead that is harder than it in the series.

4.1.2 Lead holder A clutch-type mechanical lead holder suitable for use with the leads specified.

4.2 Abrasive paper Unused silicon carbide abrasive paper of No. P600 grain size.