

# Australian Standard<sup>®</sup>

## Paints and related materials—Methods of test

### Method 406.1: Resistance to impact—Falling weight test (Gardner-type tester)

#### PREFACE

This Standard was prepared by the Standards Australia Committee on Paints and Related Materials, under the direction of the Multitechnics Standards Policy Board, to supersede the 1986 edition.

This Standard is substantially the same as that issued in 1986, except that it is no longer necessary to state whether the impact testing apparatus used was a light or heavy duty model. This Standard differs markedly from ISO/TR 6272-1979, *Paints and varnishes—Falling weight test*, in that it utilizes a Gardner-type impact tester and requires the use of a 10× magnifier.

#### METHOD

**1 SCOPE** This Standard sets out two procedures for assessing the resistance of paint systems to the impact of a hemispherically-tipped indenter, using a variable impact tester of the Gardner type.

##### NOTE:

- 1 The method for checking the adhesion using this test may not be suitable in all cases. For example, it should not be used where the thickness of the paint system is less than 50 µm.
- 2 For the coil coating industry, reference may also need to be made to AS 2728.

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

##### AS

1580	Paints and related materials—Methods of test
1580.101.3	Method 101.3: Standard procedure for stoving
1580.101.5	Method 101.5: Conditions of test, temperature and humidity controlled
1580.104.1	Method 104.1: Recommended materials for test panels
1580.108.1	Method 108.1: Determination of dry film thickness on iron and steel substrates (permanent magnet instruments)
2728	Prepainted and organic film/metal laminate products—Performance requirements for interior/exterior applications in buildings

**3 DEFINITIONS** For the purposes of this Standard the definitions below apply.

- 3.1 Direct impact**—the indenter falls onto the coated side of the test.
- 3.2 Impact zone**—the entire area of distortion created by the indenter.
- 3.3 Reverse impact**—the indenter falls onto the back or the uncoated side of the panel.