

Australian Standard™

Paints and related materials—Methods of test

Method 454.1: Resistance to mineral oil and other organic liquids

AS 1580.454.1

1 SCOPE

This Standard sets out a method for determining the resistance of a paint coating to mineral oil or other organic liquids, by observing its change in appearance and scratch resistance after appropriate immersion.

NOTE: This method may be used for the determination of the resistance of a coating under any non-aqueous conditions, provided that the nature and temperature of the immersion fluid and the duration of the immersion are stated in the report.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

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| 1580 | Paints and related materials—Methods of test |
| 1580.101.5 | Method 101.5: Conditions of test—Temperature and humidity control |
| 1580.403.1 | Method 403.1: Scratch resistance |
| 1580.601.1 | Method 601.1: Colour—Visual comparison |

AS/NZS

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| 1580.602.2 | Method 602.2: Measurement of specular gloss of non-metallic paint films at 20°, 60° and 85° |
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ISO

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| 3448 | Industrial liquid lubricants—ISO viscosity classification |
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3 PRINCIPLE

Two coated test panels are partially immersed in a mineral oil at a specified temperature for specified periods. After removal and being allowed to stand for a specified period, the immersed film is visually assessed for coating defects and the scratch resistance of both the immersed and non-immersed film is determined.

4 APPARATUS

The following is required:

- Beaker*—of such size as will permit immersion of the test panels in the mineral oil for about 80 mm of their length.
- Scratch resistance apparatus*—as specified for the scratch resistance test in AS 1580.403.1.
- Temperature control apparatus*—capable of maintaining the temperature of the oil contained in the beaker at $50 \pm 2^\circ\text{C}$.