BRITISH STANDARD AUTOMOBILE SERIES

BS AU 148-2:1969

Methods of test for motor vehicle paints —

Part 2: Resistance to continuous salt spray

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Foreword

This Part of this British Standard has been prepared under the authority of the Automobile Industry Standards Committee and is based on Information Sheet No. NM – 5X of the Society of Motor Manufacturers and Traders Ltd. (SMMT).

Tests for paints for general purposes are given in BS 3900[1)] and, wherever possible, reference has been made to that standard.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

[1)] BS 3900, "*Methods of test for paints*".

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 7 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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1 Scope

1.1 This Part of this British Standard describes a procedure for determining the resistance of paint films to a continuous salt fog environment. Two test conditions, differing only in temperature of operation, are given:

Test condition T25: temperature 25 ± 2 °C

Test condition T35: temperature 35 ± 2 °C

1.2 The standard does not prescribe periods of test, nor the interpretation to be given to the results.

2 Correlation and limitations of test

In order to obtain good reproducibility between laboratories, it is necessary to observe the recommended operating conditions, correct spacing of and positioning of specimens and to ensure suitable siting of equipment. Suitable forms of equipment which may be used to obtain the required conditions are referred in **5.1**. Results from other designs of equipment have been found to correlate and such equipment may be used, subject to agreement between the purchaser and the supplier.

3 Supplementary information

The following supplementary information, together with reference to appropriate standards where applicable, is required in order to carry out the tests described in this standard:

1) Type of coating or coatings.

2) Nature of substrate and method of preparation.

3) Method of application of test coating or coatings to substrate.

4) Thickness and/or weight of coating, or of individual coatings in the case of multicoat systems.

5) Duration and conditions of drying of the coated specimen (or condition of stoving, if applicable) before testing.

6) Required duration of test and test conditions (T25 or T35).

7) How inspection of the tested coating is to be made and what characteristics are to be considered in evaluating its resistance to this test.

4 Test specimens

4.1 Specimens for test will generally be panels prepared and coated with the materials to be tested, but for some purposes (for example quality control tests) painted components, or suitable portions of them, may be required.

Where components are to be tested it is important to select samples which are free from accidental damage. If this is impracticable, or if the test portion is cut from a large sample, damaged areas or cut edges etc. shall be covered with a good protective coating.

4.2 Preparation and coating of test panels

4.2.1 Panels, 150 mm × 100 mm or other convenient size, specified and pretreated in accordance with the requirements of BS 3900-A3[2)] (note particularly Clause **2.2**) shall be coated in accordance with the requirements of BS 3900-A4[2)] with the paint system to be tested. Normally, steel panels are used, but it may be appropriate to use other substrates.

4.2.2 The panels shall be aged, under normal laboratory conditions, for 7 days, unless otherwise agreed.

4.2.3 If the specimen panel is not coated on all surfaces with the material under test, coat the back and edges of the panels with a good protective coating.

4.2.4 Unless otherwise agreed, the test panel shall be damaged with a scriber by making 2 longitudinal scratches, 0.6 mm wide, through to the metal substrate. They shall extend at least ⅔ of the length of the panel and shall be positioned centrally in each vertical half. The scriber used shall be made from mild steel 0.6 mm thick and shaped to give a chisel edge capable of making the required scratches.

5 Test equipment

5.1 The equipment required consists of a chamber, a salt solution reservoir, a supply of suitably conditioned compressed air, one or more atomizing nozzles, specimen supports, provision for heating the chamber and necessary means of control. The size and detailed construction of the equipment are optional, provided the conditions obtained meet the requirements of this test.

It is important that the chamber shall be insulated to avoid temperature gradients, particularly with test condition T35. With small cabinets, this is conveniently effected by means of a double skin construction, incorporating a water jacket for temperature control.

[2)] BS 3900, "*Methods of test for paints*",
Part A3, "*Preparation of panels prior to painting*",
Part A4, "*Notes for guidance on paint application*".

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