Australian Standard®

Corrosion inhibitors (rust-proofing) —Motor vehicles

Part 1: Product

This Australian standard was prepared by Committee CS/57, Protection of Automobiles from Corrosion. It was approved on behalf of the Council of the Standards Association of Australia on 13 September 1983 and published on 4 November 1983.

The following interests are represented on Committee CS/57:

Australian Automobile Association

Australian Automobile Chamber of Commerce

Australian Automobile Dealers Association

Australian Consumers Association

Australian Corrosion Association

Automobile Rust-proofing industry

Department of Consumer Affairs, N.S.W.

Department of Defence

Federal Chamber of Automobile Industries

Government Paint Committee

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This standard was issued in draft form for comment as DR 81291.

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First published 1983

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 3194 0

PREFACE

This standard was prepared by the Association's Committee for Protection of Automobiles from Corrosion, under the direction of the Consumer Standards Advisory Committee and in response to a number of requests from the motor vehicle rust-proofing industry.

Other standards that are intended to be used in conjunction with this standard are as follows:

AS .... Corrosion Inhibition (Rust-proofing)—Motor Vehicles
Part 2—Application of Product*
Part 3—Contract—Conditions of Treatment*.

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* In course of preparation.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
CORROSION INHIBITION (RUST-PROOFING)—MOTOR VEHICLES

PART 1—PRODUCT

FOREWORD

The purpose of this standard is to specify requirements for corrosion inhibition products (commonly known as rust-proofing products) which, when applied, will not only protect the motor vehicle from corrosion but will also not cause any damage to the vehicle. In respect of these properties the standard not only specifies requirements for corrosion resistance, seam penetration, etc, but also examines effects on paintwork, zinc coatings, etc. In respect of the latter property the effects of the corrosion inhibition product on plastics, which are now being extensively used in motor vehicles, were considered but no requirement has been as yet specified because there is no suitable test procedure for evaluating such effects.

Further, the standard requires that the product does not present a health hazard to the person applying the product nor to the vehicle user.

It is stressed that to be effective in preventing rust occurring in a vehicle, not only should the corrosion inhibition product be of a suitable quality, but it should also be *applied* properly to the vehicle. Accordingly, it is intended that products complying with the requirements of this standard should also be applied to the vehicle in the manner described in Part 2 of this standard which specifies how and to which parts of the vehicle the product is to be applied. This part of the standard is in the course of preparation.

Further, to provide complete protection to the consumer, Part 3 of the standard will set out the contract conditions for treatment of the vehicle. This part of the standard, which is yet to be prepared will, in essence, cross refer to the product standard and the application standard. Consequently, to attain maximum consumer protection all three standards will need to be complied with.

Although this standard is one of a series which relates to the protection of motor vehicles from corrosion, products complying with this standard may also be used in other similar applications.

SPECIFICATION

1 SCOPE. This standard specifies performance requirements for corrosion inhibition products intended for application to motor vehicles.

NOTE: Corrosion inhibition products are commonly known as rust-proofing products.

2 APPLICATION. This standard relates to products which are intended for application to fully assembled new or used motor vehicles and not for use on components of a motor vehicle during its manufacture.

3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1247 Method for the Evaluation of Results of Accelerated Corrosion Tests on Metallic Coatings

NOTE: AS 1247 is BS 3745 which has been endorsed as an Australian standard.

AS 1397 Hot-dipped Zinc-coated or Aluminium/Zinc-coated Steel Sheet in Coil and Cut Lengths

AS 1580 Methods of Test for Paints and Related Materials
Method 301.2 —Non-volatile Content by Volume (Volume Solids)

AS 1595 Cold-rolled Unalloyed Low Carbon Steel Sheet and Strip

AS 1701 White Spirit

AS 2331 Methods of Test for Metallic and Related Coatings
2331.3.1— Corrosion and Related Property Tests —Neutral Salt Spray (NSS) Test

AS .... Corrosion Inhibition (Rust-proofing) — Motor Vehicles
Part 2 —Application of Product*
Part 3 —Contract —Conditions of Treatment*.

4 DEFINITIONS. For the purposes of this standard, the following definitions apply:

4.1 Corrosion inhibition product—a product which is intended to be applied to—

(a) concealed areas; and/or

(b) exposed areas,

of sheet metal components of a motor vehicle for the purposes of protecting the treated areas from corrosion.

4.2 Concealed area—inside surface area of a component, wherein the area is generally not accessible without damaging or dismantling the component, e.g. seams, box sections such as sills, pillars, bonnet stiffeners, door cavities.

NOTE: Access for treating concealed areas with a corrosion inhibition product is obtained—

(i) in the case of seams, by the penetration properties of the corrosion inhibition product itself (see Clause 6.9);

(ii) in the case of box sections, through existing holes or by drilling holes in the component which is to be treated.

4.3 Exposed area—outside surface area of a component, wherein the area is readily accessible, e.g. underside of mudguard, underside of quarter panel, underside of boot, wheel well.

5 CONDITION IN CONTAINER. After stirring the corrosion inhibition product in a clean container, the product shall be of uniform consistency and free from gel, coarse particles or any foreign matter which is visible to a person with normal vision.

6 PERFORMANCE REQUIREMENTS.

NOTE: When used in accordance with the manufacturer's instructions, the corrosion inhibition product is to comply with all the relevant requirements of the appropriate Regulatory Authorities (e.g. Department of Labour and Industry, Health Department).

6.1 Corrosion resistance. When test panels are coated with a corrosion inhibition product and tested in accordance with Appendix A, then—

(a) if the corrosion inhibition product is intended for application to concealed areas only, each of the test panels shall have a rating number of not less than 9, when evaluated by the method described in AS 1247; or

(b) if the corrosion inhibition product is intended for application to concealed and exposed areas or exposed areas only—

(i) each of the test panels shall have a rating number of not less than 9, when evaluated by the method described in AS 1247; and

(ii) the scribed test panels shall have no rust spot that extends from the scribe mark to more than 1 mm away from either side of the scribe mark.

6.2 Effects on painted surfaces. When a corrosion inhibition product intended for application to concealed and/or exposed areas is tested in accordance with Appendix B—

(a) the corrosion inhibition product shall be capable of being completely removed from finished coatings; and

(b) after the finished coating is allowed to harden for 2 h as specified in Paragraph B5(g), there shall be no visual difference, e.g. colour, lustre, swelling or softening, between the finished coating where the corrosion inhibition product was applied as compared to the finished coating where the corrosion inhibition product was not applied.

6.3 Effect on zinc. When a corrosion inhibition product, intended for application to concealed and/or exposed areas, is tested in accordance with Appendix C, none of the test panels shall gain or lose more than 0.01 g in mass.

6.4 Fire resistance. When a corrosion inhibition product, intended for application to concealed and/or exposed areas, is tested in accordance with Appendix D, the average time the coatings continue to burn after the flame is removed from the coatings shall not be more than 15 s.

6.5 Physical stability at high temperatures. When a corrosion inhibition product, intended for application to concealed and/or exposed areas, is tested in accordance with Appendix E, no part of either of the coatings shall have flowed beyond the respective marked reference line.

*In course of preparation.