
**Corrosion of metals and alloys —
Removal of corrosion products from
corrosion test specimens**

*Corrosion des métaux et alliages — Élimination des produits de
corrosion sur les éprouvettes d'essai de corrosion*



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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 8407 was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

This second edition cancels and replaces the first edition (ISO 8407:1991), which has been technically revised.

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Corrosion of metals and alloys — Removal of corrosion products from corrosion test specimens

WARNING — Safety rules for personnel: handling of the solutions used for removal of corrosion products must be left to skilled personnel or conducted under their control. The equipment must be used and maintained by skilled personnel, not only so that the procedures can be performed correctly, but also because of the hazards to health and safety that are involved.

1 Scope

This International Standard specifies procedures for the removal of corrosion products formed on metal and alloy corrosion test specimens during their exposure in corrosive environments. For the purpose of this International Standard, the term "metals" refers to pure metals and alloys.

The specified procedures are designed to remove all corrosion products without significant removal of base metal. This allows an accurate determination of the mass loss of the metal, which occurred during exposure to the corrosive environment.

These procedures may, in some cases, also be applied to metal coatings. However, possible effects from the substrate must be considered.

2 Procedures

2.1 General

2.1.1 A light mechanical cleaning treatment by brushing with a soft bristle brush under running water should first be applied to remove lightly adherent or bulky corrosion products.

2.1.2 If the treatment described in 2.1.1 does not remove all corrosion products, it will be necessary to use other procedures. These are of three types:

- a) chemical;
- b) electrolytic;
- c) more vigorous mechanical treatments.

NOTE These treatments will also remove some base metal.

Whichever method is used, it might be necessary to repeat the cleaning treatment to ensure complete removal of the corrosion products. Removal shall be confirmed by visual examination. The use of a low-power microscope (i.e. $\times 7$ to $\times 30$) is particularly helpful with a pitted surface since corrosion products may accumulate in pits.

2.1.3 An ideal procedure should remove corrosion products and not result in removal of any base metal. Two procedures can be used to confirm this point. One procedure uses a control specimen (2.1.3.1) and the other requires a certain number of cleaning cycles on the corroded specimen (2.1.3.2).