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Corrosion of metals and alloys — Corrosion fatigue testing —

Part 1: Cycles to failure testing

*Corrosion des métaux et alliages — Essais de fatigue-corrosion —
Partie 1: Essais cycliques à la rupture*



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Contents

Page

1	Scope	1
2	Normative reference	1
3	Definitions	1
4	Test.....	3
4.1	Principle	3
4.2	Specimens	3
4.3	Environmental considerations.....	8
4.4	Stressing considerations.....	8
5	Apparatus	9
6	Procedure	9
7	Test report	10
Annex A	(informative) Bibliography	12

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International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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.

International Standard ISO 11782-1 was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

ISO 11782 consists of the following parts, under the general title *Corrosion of metals and alloys — Corrosion fatigue testing*

- *Part 1: Cycles to failure testing*
- *Part 2: Crack propagation testing using precracked specimens*

Annex A of this part of ISO 11782 is for information only.

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Introduction

The study of cycles to failure testing uses plain or notched specimens to provide data on the intrinsic corrosion fatigue crack like behaviour of a metal or alloy and can be used to develop criteria for engineering design to prevent fatigue failures.

The study of cycles to failure can be applied to a wide variety of product forms including plate, rod, wire, sheet and tubes as well as to parts joined by welding.

The results of corrosion fatigue testing are suitable for direct application only when the service conditions exactly parallel the test conditions especially with regard to material, environmental and stressing considerations. The combination of material/load/environmental may not be directly comparable to the application. For these cases engineering judgement must be applied.