

Rubber, vulcanized or thermoplastic — Determination of tendency to adhere to and corrode metals

ICS 83.060

National foreword

This British Standard reproduces verbatim ISO 6505:2005 and implements it as the UK national standard. It supersedes BS 903-A37:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/22, Physical testing of rubber, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 13 and a back cover.

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 10 February 2006

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ISBN 0 580 47708 8

Amendments issued since publication

Amd. No.	Date	Comments

INTERNATIONAL STANDARD

**ISO
6505**

Third edition
2005-10-01

Rubber, vulcanized or thermoplastic — Determination of tendency to adhere to and corrode metals

*Caoutchouc, vulcanisé ou thermoplastique — Détermination de la
tendance à adhérer aux métaux et à les corroder*



Reference number
ISO 6505:2005(E)

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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Principle	1
4 Materials	2
5 Apparatus	2
6 Test metals	2
7 Test pieces	4
8 Test conditions	4
9 Procedure	5
10 Expression of results	7
11 Test report	8
Annex A (normative) Calibration schedule	9
Annex B (informative) Grading of degree of corrosion	12

Foreword

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ISO 6505 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analysis*.

This third edition cancels and replaces the second edition (ISO 6505:1997), which has been extended to include a specification for a “wet” atmosphere and to cover the testing of O-rings.

Introduction

In assemblies which include both metallic and rubber components, it is essential to avoid unintentional adhesion of rubber to metal, and corrosion of the metal by the rubber. Adhesion occurs only where there is direct contact between the metal and the rubber, but corrosion may also arise, within a closed system, on metal components remote from the rubber, such corrosion being due to volatile materials emanating from the rubber.

Since some metals corrode more readily than others, it is not possible to specify optimum test conditions for assessing the resistance to corrosion of all metals and alloys. Furthermore, the ranking of a metal's susceptibility to corrosion will depend upon the environment in which it is exposed to the rubber, e.g. in the presence of high humidity the effects on steel, in particular, can be severe.