

INTERNATIONAL STANDARD

**ISO
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Rubber and latex — Determination of copper content — Photometric method

Caoutchouc et latex — Dosage du cuivre — Méthode photométrique



Reference number
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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 8053 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*.

This second edition cancels and replaces the first edition (ISO 8053:1986), of which it constitutes a minor revision.

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Introduction

Copper in certain forms is known to catalyse the oxidative breakdown of natural rubber although the mechanism by which degradation is brought about is not fully understood. It is recognized also that other forms of copper can be present in the rubber even in relatively large amounts, without degradation taking place, but in these cases there is always the possibility that under the influence of some chemicals, notably unsaturated acids, the copper could assume a more aggressive oxidative catalytic role.

Clearly it would be an advantage to distinguish analytically between catalytically active and inactive forms, but no generally accepted method has yet been put forward for doing so. There is no alternative therefore but to determine the total amount of copper in the rubber.

The method specified in this International Standard is applicable to all the commonly used rubbers, including those containing chlorine.

Another method for the determination of the copper content of rubber and latex is given in ISO 6101-3:1988, *Rubber — Determination of metal content by atomic absorption spectrometry — Part 3: Determination of copper content*.