Third edition
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# Rubber, vulcanized or thermoplastic — Resistance to weathering

*Caoutchouc vulcanisé ou thermoplastique — Résistance aux intempéries*

Reference number
ISO 4665:2016(E)



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# Foreword

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The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analysis*.

This third edition cancels and replaces the second edition (ISO 4665:2006), which has been technically revised with the following changes:

— normative references have been updated, small editorial changes made for clarification and compression set added to mechanical properties that could be measured.

 

# Introduction

A number of different exposure techniques can be used to provide information on the effects of environmental stresses such as light, heat, and water on rubbers. Each of these has its own particular application and relevance. Explanation of, and guidance on, methods for exposure to natural and artificial weathering is given in ISO 877-1 and ISO 4892-1. Particular guidance on exposure to determine resistance to ozone is given in ISO 1431-1. The methods for exposure to weathering standardized for plastic materials are essentially suitable for rubbers, and hence this International Standard refers to the relevant ISO standards for plastics for the apparatus and procedures.

It is desirable that the procedures for the determination of changes in properties are the same whatever exposure is used and that the results should be expressed in a uniform manner. Such procedures are specified in this International Standard.

Exposure to weathering alters the properties of the material, particularly in the surface layer. The test method used to determine changes in properties should be selected after consideration of the properties of the material which are important in its proposed application and taking into account the fact that degradation might be concentrated at the surface layer. The methods chosen ought to be capable of measuring change in properties with sufficient precision within the ranges which are important in practice, so as to provide significant criteria of change.