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Ergonomics — Accessible design — Method for creating colour combinations taking account of age- related changes in human colour vision

*Ergonomie — Conception accessible — Méthode de création de
combinaisons de couleurs tenant compte des changements liés à l'âge
dans la vision en couleurs humaine*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 159, *Ergonomics*, Subcommittee SC 5, *Ergonomics of the physical environment*.

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Introduction

While the social care of older people has widely spread in many countries, the design and production of visual signs and displays do not always take into account the unique needs of older people. This International Standard presents a method for assessing and designing signs and displays in our visual environment so that they are clearly visible to older people. This International Standard includes a method and data for creating conspicuous colour combinations in visual signs and displays seen by people at any age by considering age-related change of human colour vision.

A reasonably large number of people, especially men, have defective colour vision of various types, and some smaller part of the population have suffered from medical disorders of the eye such as low vision. This International Standard is not applicable to colour combinations for people who have deficient colour vision or medical disorders affecting vision. Other International Standards are planned that will provide methods to enable the creation of colour combinations for people with widely varying visual disabilities, including those for people with normal colour vision at any age, people with colour deficiencies and people with low vision, and for general guidance on the use of the colour-combination standard.

In describing colours in this International Standard, the Munsell colour system is used, which is a colour-order system recommended by the Commission Internationale de l'Eclairage.^[9]

This International Standard adopts the principles of accessible design given in Reference [3] and amplified in Reference [4].