
**Pigments, dyestuffs and extenders —
Terminology —**

**Part 2:
Classification of colouring materials
according to colouristic and chemical
aspects**

Pigments, colorants et matières de charge — Terminologie —

*Partie 2: Classification des matières colorantes en fonction de leurs
aspects colorimétriques et chimiques*



This document is a preview generated by ERS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification of inorganic and organic colouring materials in accordance with colouristic aspects	1
5 Classification of inorganic and organic colouring materials in accordance with chemical aspects	8
Bibliography	15

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 256, *Pigments, dyestuffs and extenders*.

This second edition cancels and replaces the first edition (ISO 18451-2:2015), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

- [Clause 2](#) has been updated;
- the boilerplate of [Clause 3](#) has been updated;
- the typing errors, e.g. missing names of colouring materials, have been corrected;
- the numbering of some footnotes has been corrected.

A list of all parts in the ISO 18451 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In accordance with ISO 18451-1, it depends on the individual application as to whether a substance is to be considered as a pigment or as an extender. Substances like aluminium silicate, barium sulfate and calcium carbonate are taken into consideration in [Clauses 4](#) and [5](#).

In addition to the examples of the colouring materials, the designation in accordance with the Colour Index¹⁾ [\[1\]](#) has been included. However, it is to be noted that for a number of the given designations of colouring materials (which are partly collective designations) not only one designation in accordance with the Colour Index is possible, even if in this document only one Colour Index designation is given.

In the “Classification scheme” in [Clause 4](#), some spaces are empty. Corresponding colouring materials are either without practical importance or they do not exist for physical reasons.

Inorganic dyestuffs, e.g. those for use with enamel, glass, ceramics and food, have been only mentioned in [Clauses 4](#) and [5](#) but not classified in accordance with certain aspects. The reason for this is that up to now, such colouring materials are excluded from the work of ISO/TC 256.

1) The Colour Index (briefly: C.I.) is a work of reference existing since 1925, and comprising all usual colouring materials and dyestuff chemicals being used as their basis. It is accepted as a standard work in the field of pigment and dyestuff chemistry.

Pigments, dyestuffs and extenders — Terminology —

Part 2:

Classification of colouring materials according to colouristic and chemical aspects

1 Scope

This document applies to the industry producing colouring materials and the consumer who uses the products of this industry. In this document, the colouring materials are classified in accordance with colouristic and chemical aspects.

Some dyestuffs for use in the ceramics and food industries are listed as examples.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 18451-1, *Pigments, dyestuffs and extenders — Terminology — Part 1: General terms*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 18451-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org>

4 Classification of inorganic and organic colouring materials in accordance with colouristic aspects

Inorganic and organic colouring materials are classified in accordance with colouristic aspects as given in [Figure 1](#).