

Methods for

# Testing pigments for paints —

## Part C7: Comparison of resistance to bleeding

[ISO title: General methods of test for pigments and extenders —  
Part 22: Comparison of resistance to bleeding of pigments]

*This Part should be read in conjunction with the General Introduction to BS 3483  
issued separately.*

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# National foreword

This revision of Part C7 of BS 3483 has been prepared under the direction of the Pigments, Paints and Varnishes Standards Committee. It is identical with ISO 787-22 “General methods of test for pigments and extenders — Part 22: Comparison of resistance to bleeding of pigments” published in 1980 by the International Organization for Standardization (ISO). The 1974 edition of Part C7 is now withdrawn.

**Terminology and conventions.** The text of the International Standard has been approved as suitable for publication, without deviation, as a British Standard. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

In 1.1 “This part of ISO 787” should be read as “This Part of BS 3483”.

In clause 7 b) “International Standard (ISO 787-22)” should be read as “British Standard (BS 3483-C7)”.

### Cross-references

International Standard	Corresponding British Standard
ISO 842:1974	BS 4726:1971 <i>Methods for sampling raw materials for paints and varnishes</i> (Technically equivalent)
ISO 3668:1976	BS 3900 <i>Methods of test for paints</i> Part D1:1978 <i>Visual comparison of the colour of paints</i> (Identical)

NOTE *Textual error.* In clause 0 “Indroduction” should be read as “Introduction”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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This British Standard, having been prepared under the direction of the Pigments, Paints and Varnishes Standards Committee, was published under the authority of the Executive Board and comes into effect on 31 July 1980

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### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 and 2, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

### Amendments issued since publication

Amd. No.	Date of issue	Comments

# Contents

	Page
National foreword	Inside front cover
0 Introduction	1
1 Scope and field of application	1
2 References	1
3 Definition	1
4 Materials	1
5 Sampling	1
6 Procedure	1
7 Test report	2
Publications referred to	Inside back cover



## 0 Introduction

This document is a part of ISO 787, *General methods of test for pigments and extenders*.

Although a number of methods for determining resistance to bleeding are available, for example solubility in a solvent, the method in this part has been established because it is essentially a practical test and as such is probably of greater general value than other methods.

## 1 Scope and field of application

This part of ISO 787 specifies a general method for comparing the resistance to bleeding of a pigment with that of an agreed sample.

**NOTE** When this general method is applicable to a given pigment, only a cross-reference to it should be included in the International Standard relating to that pigment with a note of any detailed modification which may be needed in view of the special properties of the pigment in question. Only when this general method is not applicable to a particular pigment should a special method for comparison of resistance to bleeding be specified.

## 2 References

ISO 842, *Raw materials for paints and varnishes — Sampling*.

ISO 3668, *Paints and varnishes — Visual comparison of the colour of paints*.

## 3 Definition

### bleeding

the discoloration or staining of a newly applied paint film due to migration of colour from the pigment contained in the coating over which the paint film is applied. The discoloration may occur immediately on application of the paint film or at any stage during the drying of the paint film

## 4 Materials

### 4.1 Panels

Any suitable light-gauge metal panels, for example of bright tinplate or aluminium, conveniently 150 mm × 100 mm, the surfaces of which have been cleaned and lightly abraded, or other suitable panels as agreed between the interested parties.

**4.2 Silicon carbide paper**, grade 600.

**4.3 Black and white charts**, as used for hiding-power determinations.

**4.4 Agreed medium**, which may be suitable either for drying at ambient temperature or for stoving for a specified time at a specified temperature, as agreed between the interested parties.

**4.5 White overcoating composition**, to be agreed between the interested parties.

## 5 Sampling

Take a representative sample of the pigment to be tested as described in ISO 842.

## 6 Procedure

Prepare a dispersion of the pigment under test in the agreed medium by a suitable method to be agreed between the interested parties, including dilution of the dispersion to an appropriate consistency by further addition of the agreed medium or solvent.

Prepare a dispersion of the agreed sample in the same manner in the same medium.

Apply the dispersion of the pigment under test by an agreed method over two-thirds of the length of a test panel, to give a wet film thickness of 75 to 120 µm, and so that one end of the panel is left uncoated. Allow the film to dry as specified or subject it to the specified stoving conditions as appropriate.

Prepare a test panel using the dispersion of the agreed sample in the same manner.

If previously agreed between the interested parties, the coated area of the panel may be lightly abraded with the silicon carbide paper before the next stage of application. To a part of the uncoated area attach a piece of black and white chart.

Apply the white overcoating composition over two-thirds of the length of the panel so as to leave one end coated only with the dispersion of the pigment under test, the centre one-third coated with both pigment dispersion and overcoating, and the other end and the black and white chart with only the overcoating. The overcoating shall be applied thickly enough to cover the black and white pattern of the chart.

Allow the film to dry at ambient temperature or subject it to the specified stoving conditions as appropriate.

Immediately after the overcoating film is dry, compare, in diffuse daylight, by the procedure described in ISO 3668, the degree of bleeding, as shown by the difference in colour between the areas of the panels coated with white composition only and with the white composition over the pigment dispersion of the test sample, with the degree of bleeding of the agreed sample, and note whether it is equal to, greater than, or less than that of the agreed sample. If daylight is not available, make the comparison in artificial daylight.

Repeat the comparison after 24 h.

**NOTE** If required and agreed, the degree of bleeding may be assessed by using a suitable colorimeter.

## 7 Test report

The test report shall include at least the following information:

- a) the type and identification of the pigment under test;
- b) a reference to this International Standard (ISO 787-22);
- c) the details of items agreed between the interested parties, including pigment concentration, reference pigment used, medium used, method of application, curing conditions of the test film and type of overcoating;
- d) any deviation, by agreement or otherwise, from the test procedure specified;
- e) whether the comparison was made in natural or artificial daylight;
- f) the result of the test: bleeding less than, equal to, or greater than that of the agreed sample of pigment;
- g) the date of the test.

## **Publications referred to**

See national foreword.

**BS 3483-C7:**  
**1980**  
**ISO 787-22:**  
**1980**

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