BRITISH STANDARD

BS 303:1991
ISO 3710:1990

Specification for

Lead chrome green pigments for paints

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Pigments, Paints and Varnishes Standards Policy Committee (PVC/-) to Technical Committee PVC/1, upon which the following bodies were represented:

Aluminium Powder and Paste Association
British Cement Association
British Railways Board
Chemical Industries' Association
Oil and Colour Chemists' Association
Paintmakers' Association of Great Britain Ltd.
Titanium Pigment Manufacturers' Technical Committee
Zinc Development Association

This British Standard, having been prepared under the direction of the Pigments, Paints and Varnishes Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 28 June 1991

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The following BSI references relate to the work on this standard:
Committee reference PVC/1
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Amendments issued since publication

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Contents

National foreword

This revision of this British Standard has been prepared under the direction of the Pigments, Paints and Varnishes Standards Policy Committee. It is identical with ISO 3710:1990 *"Lead chrome green pigments — Specifications and methods of test"*, published by the International Organization for Standardization (ISO). It supersedes BS 303:1978, which is withdrawn.

The principal differences from the 1978 edition of BS 303 are as follows.

a) The scope is now restricted to lead chrome green containing not more than 50 % (*m*/*m*) of an iron blue pigment.

b) The original table is replaced by two tables: the first sets out essential requirements and the second sets out conditional requirements.

c) The inclusion of an additional method for determination of volatile matte at 105 °C for 1 h.

d) The method for the determination of total lead content has been removed.

Cross-references

International Standard	Corresponding British Standard
	BS 3483 *Methods for testing pigments for paints*
ISO 787-1:1982	Part A1:1983 *Comparison of colour* (Identical)
ISO 787-2:1981	Part B6:1982 *Determination of matter volatile at 105 °C*
ISO 787-4:1981	Part C3:1982 *Determination of acidity or alkalinity of the aqueous extract* (identical)
ISO 787-5:1980	Part B7:1982 *Determination of oil absorption value* (Identical)
ISO 787-7:1981	Part B3:1982 *Determination of residue on sieve (water method, using a manual procedure)* (Identical)
ISO 787-8:1979	Part B2:1980 *Determination of matter soluble in water (Cold extraction method)* (Identical)
ISO 787-16:1986	Part A4:1988 *Determination of the relative tinting strength and colour on reduction of coloured pigment using visual comparison* (Identical)
ISO 787-20:1975	Part B5:1974 *Comparison of ease of dispersion (oscillatory shaking method)* (Technically equivalent)
ISO 842:1984	BS 4726:1986 *Methods for sampling raw materials for paints and varnishes* (Identical)
ISO 3711:1990	BS 7446:1991 *Specification for lead chromate pigments and lead chromate-molybdate pigments for paint* (Identical)

The Technical Committee has reviewed the provisions of ISO 2495:1972, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard. A related British Standard to ISO 2495:1972 is BS 283:1965 *"Specification for Prussian blues for paints"*.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, 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.

1 Scope

This International Standard specifies the requirements and the corresponding methods of test for lead chrome green containing not more than 50 % (*m*/*m*) of an iron blue pigment. These pigments are suitable for general use.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 787-1:1982, *General methods of test for pigments and extenders — Part 1: Comparison of colour of pigments.*

ISO 787-2:1981, *General methods of test for pigments and extenders — Part 2: Determination of matter volatile at 105 °C.*

ISO 787-4:1981, *General methods of test for pigments and extenders — Part 4: Determination of acidity or alkalinity of the aqueous extract.*

ISO 787-5:1980, *General methods of test for pigments and extenders — Part 5: Determination of oil absorption value.*

ISO 787-7:1981, *General methods of test for pigments and extenders — Part 7: Determination of residue on sieve — Water method — Manual procedure.*

ISO 787-8:1979, *General methods of test for pigments and extenders — Part 8: Determination of matter soluble in water — Cold extraction method.*

ISO 787-16:1986, *General methods of test for pigments and extenders — Part 16: Determination of relative tinting strength (or equivalent colouring value) and colour on reduction of coloured pigments — Visual comparison method.*

ISO 787-20:1975, *General methods of test for pigments — Part 20: Comparison of ease of dispersion (Oscillatory shaking method).*

ISO 842:1984, *Raw materials for paints and varnishes — Sampling.*

ISO 2495:1972, *Iron blue pigments for paints.*

ISO 3711:—, *Lead chromate pigments and lead chromate-molybdate pigments — Specifications and methods of test*[1)].

3 Definition

For the purposes of this International Standard, the following definition applies.

lead chrome green pigment

a pigment produced either by precipitating lead chromate pigment on to an iron blue pigment dispersion or by mixing lead chromate pigment and iron blue pigments

4 Required characteristics and associated tolerances

4.1 Pigments complying with this International Standard shall not contain extenders or organic colouring matter; surface-active agents may be present. When produced by mixing pigments, the lead chromate pigment shall comply with ISO 3711 and the iron blue pigment with ISO 2495.

4.2 For lead chrome green pigments complying with this International Standard, the essential requirements are specified in Table 1 and the conditional requirements are listed in Table 2. The reference pigment and the conditional requirements listed in Table 2 shall be specified by agreement between the interested parties.

4.3 The agreed reference pigment shall comply with the requirements of Table 1.

5 Sampling

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

6 Determination of volatile matter

For the determination of volatile matter, two methods are specified (A and B). Method A (**6.1**) shall be used as the referee method in cases of dispute.

6.1 Method A — Determination at 60 °C for 16 h

6.1.1 *Procedure*

Carry out the determination in duplicate.

Into a weighing bottle of about 65 mm diameter weigh, to the nearest 1 mg, a test portion of the pigment such that, when the test portion is spread in a uniform layer, the depth of the layer does not exceed 5 mm.

[1)] To be published. (Revision of ISO 3711:1976)