



Standard Specification for Bone Black Pigment¹

This standard is issued under the fixed designation D 210; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the pigment commercially known as bone black, ivory black, or drop black. The pigment may be purchased in the dry form or as a paste in oil.

2. Referenced Documents

2.1 ASTM Standards:

D 185 Test Methods for Coarse Particles in Pigments, Pastes, and Paints²

D 387 Test Method for Color and Strength of Color Pigments with a Mechanical Muller³

D 1208 Test Methods for Common Properties of Certain Pigments²

3. Composition and Properties

3.1 *Dry Pigment*—The pigment shall be made by the calcination of bones, shall be unmixed with any other substance, and shall conform to the following requirements:

Ash (pigment dried at 105°C), %, max	88
Ash insoluble in acids, max, %	3.0
Acetone extract, max, %	2.0
Coarse particles (total residue retained on a No. 325 (45-μm) sieve), max, %	2.0

3.2 *Paste in Oil*—The paste in oil shall be made by thoroughly grinding the specified pigment with linseed oil. As received it shall not be caked in the container and shall break up readily in oil to form a smooth paint of brushing consistency. It shall mix readily in all proportions, without curdling,

with linseed oil, turpentine, or volatile petroleum spirits, or any mixture of these substances. The paste shall conform to the following requirements:

Pigment, min, %	45
Linseed oil, max, %	55
Coarse particles and skins (total residue retained on a No. 325 (45-μm) sieve), max, % of the dry pigment	2.5

3.3 The mass color and character of the tint and the tinting strength formed by a mixture with a white pigment shall be within mutually agreed upon limits of a standard acceptable to both the purchaser and the seller.

4. Sampling

4.1 Two samples shall be taken at random from different packages from each lot, batch, day's pack, or other unit of production in a shipment. When no markings distinguishing between units of production appear, samples shall be taken from different packages in the ratio of two samples for each 10 000 lb (5000 kg), except that for shipments of less than 10 000 lb two samples shall be taken. At the option of the purchaser, the samples may be tested separately or after blending in equal quantities the samples from the same production unit to form a composite sample.

5. Test Methods

5.1 Tests shall be conducted in accordance with the following ASTM test methods. Test procedures not covered by ASTM test methods shall be mutually agreed upon by the purchaser and the seller.

5.2 *Coarse Particles*—Test Methods D 185.

5.3 *Pigment and Linseed Oil in Paste in Oil*—Test Methods D 1208.

5.4 *Mass Color and Tinting Strength*—Test Method D 387.

6. Keywords

6.1 Black pigment; drop black; ivory black; pigment.

¹ This specification is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications, and is the direct responsibility of Subcommittee D01.31 on Pigment Specifications.

Current edition approved Aug. 28, 1981. Published October 1981. Originally published as D 210 – 24. Last previous edition D 210 – 81.

² *Annual Book of ASTM Standards*, Vol 06.03.

³ *Annual Book of ASTM Standards*, Vol 06.01.

The American Society for Testing and Materials takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 100 Barr Harbor Drive, West Conshohocken, PA 19428.