



Designation: D1649 – 01 (Reapproved 2019)

## Standard Specification for Strontium Chromate Pigment<sup>1</sup>

This standard is issued under the fixed designation D1649; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers the pigment commercially known as strontium chromate which is suitable for use in the manufacture of protective or decorative coatings.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

[D387 Test Method for Color and Strength of Chromatic Pigments with a Mechanical Muller](#)

[D1208 Test Methods for Common Properties of Certain Pigments](#)

[D1845 Test Methods for Chemical Analysis of Strontium Chromate Pigment](#)

### 3. Composition and Properties

3.1 *Dry Pigment*—The pigment shall be commercially pure strontium chromate-free of extenders and organic material, except for materials introduced to improve those properties for

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

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

which the pigment is used. The pigment shall conform to the following requirements:

	percent
Strontium as SrO, min	48
Chromium as CrO <sub>3</sub> , min	47
Chloride as Cl, max	0.1
Sulfate as SO <sub>3</sub> , max	0.2
Water content, max	0.2
Coarse particles (total residue retained on No. 325 (45- $\mu$ m) sieve), max	1.0

3.2 The mass color and character of the tint and 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 when tested in accordance with Test Method [D387](#).

### 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 4540 kg or 10 000 lb, 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 appropriate ASTM test methods. Test procedures not covered by ASTM test methods shall be mutually agreed upon between the purchaser and the seller.

5.1.1 *Chemical Analysis*—Test Methods [D1845](#).

5.1.2 *Water Content*—Test Methods [D1208](#).

### 6. Keywords

6.1 chromate; corrosion inhibitor; pigment; strontium salt