



Designation: D2203 – 01 (Reapproved 2023)

Standard Test Method for Staining from Sealants¹

This standard is issued under the fixed designation D2203; 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 test method covers a laboratory procedure for determining whether a sample of sealant will cause staining of the substrate when in the contact with masonry, concrete, or stone (marble, limestone, sandstone, granite, etc.).

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

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—Currently there is no ISO standard similar to this test method.

1.4 *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:*²

C510 Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants

C717 Terminology of Building Seals and Sealants

3. Terminology

3.1 **Definitions**—Refer to Terminology **C717** for definitions of the following terms used in this test method: compound, sealant, substrate.

¹ This test method is under the jurisdiction of ASTM Committee **C24** on Building Seals and Sealants and is the direct responsibility of Subcommittee **C24.20** on General Test Methods.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

4. Significance and Use

4.1 Staining of a building is an aesthetically undesirable occurrence. This test method evaluates the likelihood of a sealant causing an early stain on a porous substrate, when the stain is caused by gross exudation from the sealant. This test method does not predict staining caused by other factors.

4.2 See also Test Method **C510**.

5. Apparatus and Materials

5.1 *Convection Oven*, having a temperature controlled at $104.5 \pm 3^\circ\text{C}$ ($220 \pm 5^\circ\text{F}$).

5.2 *Brass Ring*, 19 mm ($\frac{3}{4}$ in.) inside diameter, 19 mm ($\frac{3}{4}$ in.) high, walls at one end beveled to a minimum diameter.

5.3 *Filter Paper*, ten sheets, high-grade, rapid, qualitative 9 cm in diameter.³

5.4 *Aluminum Foil*, household-type, 25.4 mm (1 in.) square.

5.5 *Weight*, 300-g.

5.6 *Spatula*, small, thin, steel.

5.7 *Glass Plate*, at least 100 by 100 mm (4 by 4 in.).

5.8 *Desiccator*, with drying agent.

6. Sampling

6.1 Take the test specimen from a previously unopened container and thoroughly mix before using, if required for homogeneity.

7. Conditioning

7.1 Condition the sample in a closed container for at least 5 h at $23 \pm 2^\circ\text{C}$ ($73.4 \pm 3.6^\circ\text{F}$).

8. Procedure

8.1 Dry the filter papers for 5 to 8 h in an oven maintained at $104.5 \pm 3^\circ\text{C}$ ($220 \pm 5.4^\circ\text{F}$). At the end of the drying period, remove from the oven and store in a desiccator until cool.

8.2 Remove ten filter papers from the desiccator, staple them together, and place them on a glass plate. Set the brass

³ This test method is based on the use of Whatman No. 1 filter paper, manufactured by Whatman, Inc., 9 Bridewell Place, Clifton, NJ 07073.