Designation: D 5722 – 03

Standard Practice for Performing Accelerated Outdoor Weathering of Factory-Coated Embossed Hardboard Using Concentrated Natural Sunlight and a Soak-Freeze-Thaw Procedure[1]

This standard is issued under the fixed designation D 5722; 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 practice covers techniques to accelerate weathering effects of factory-coated embossed hardboard using apparatus described in Practice G 90.

1.2 This practice is based upon Cycle 1 of Practice G 90 (concentrated natural sunlight with periodic surface water spray) plus a soak-freeze-thaw cycle (see Section 5 of this practice).

1.3 Testing by use of the methods described in this practice may be employed in the qualitative assessment of weathering effects. The relative durability of coated hardboards may be best determined by comparison of their test results with those of pass-fail control specimens derived from real time exposure test experience (see 8.2 for specific guidelines).

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

1.5 *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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:* [2]

D 660 Test Method for Evaluating Degree of Checking of Exterior Paints

D 661 Test Method for Evaluating Degree of Cracking of Exterior Paints

D 662 Test Method for Evaluating Degree of Erosion of Exterior Paints

D 772 Test Method for Evaluating Degree of Flaking (Scaling) of Exterior Paints

D 4214 Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films[3]

G 90 Practice for Performing Accelerated Outdoor Weathering of Nonmetallic Materials Using Concentrated Natural Sunlight

G 113 Terminology Relating to Natural and Artificial Weathering Tests of Nonmetallic Materials

3. Terminology

3.1 The terminology used in this practice is defined in Terminology G 113.

3.2 *Definitions:*

3.2.1 *hardboard*—generic term for a panel manufactured primarily from inter-felted lignocellulosic fibers (usually wood), consolidated under heat and pressure in a hot press to a density of 0.50 g/cm^3(31 lb/ft^3) or greater and to which other materials may have been added during manufacture to improve certain properties.

3.2.2 *embossed hardboard*—hardboard that is manufactured with a textured surface.

3.2.2.1 *Discussion*—Wood-like and stucco patterns are examples of typical embossed hardboard surfaces.

4. Summary of Practice

4.1 This practice is used to accelerate long-term weathering effects by subjecting the samples to a concentrated natural sunlight (with periodic daytime surface water spray) plus a soak-freeze-thaw cycle.

4.2 This practice has been useful in accelerating finish failure involving loss of film integrity, such as cracking, peeling, and flaking of factory-coated embossed hardboard.

5. Significance and Use

5.1 The ability to quickly and accurately evaluate and predict long-term weathering performance of factory-applied coatings is of paramount importance in making sound business and technical decisions.

5.2 It is important to include control specimens of known field performance to determine the efficacy of this practice for

[1] This practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.27 on Accelerated Testing.

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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.

[3] Withdrawn.