



Designation: D7733 – 12 (Reapproved 2021)

Standard Specification for Acrylic Dispersion Ground¹

This standard is issued under the fixed designation D7733; 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 standard specifies test methods which measure minimum qualities for acrylic dispersion grounds.

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 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.*

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

D1640 Test Methods for Drying, Curing, or Film Formation of Organic Coatings

D3359 Test Methods for Rating Adhesion by Tape Test

3. Terminology

3.1 *Definitions:*

3.1.1 *flash-through, n*—the visible evidence of oil on the opposite side of a support to which it was applied; also referred to as strike-through.

3.1.2 *gesso grounds, n:*

3.1.2.1 calcium hydroxide and water (“slaked lime”).

3.1.2.2 calcium sulfate (“plaster of Paris”) or calcium carbonate (chalk) prepared with a natural protein glue water.

¹ 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 D01.57 on Artist Paints and Related Materials.

Current edition approved Nov. 1, 2021. Published November 2021. Originally approved in 2012. Last previous edition approved in 2016 as D7733 – 12 (2016). DOI: 10.1520/D7733-12R21.

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.

3.1.2.3 in contemporary usage, the term “gesso” is sometimes used by manufacturers of acrylic dispersion products to describe their products in a brand name.

3.1.3 *ground, n*—a surface onto which an artist applies decorative coatings and paints.

3.1.4 *polymer, n*—a long chain synthetic or naturally occurring molecule composed of smaller, repeating units called monomers.

3.1.5 *size, n*—a liquid material that absorbs and penetrates into a substrate preparing the substrate for a primer or ground by at least partially sealing the surface and creating more integrity and less absorption of the surface.

3.1.6 *strike-through, n*—see *flash-through*.

4. Significance and Use

4.1 This specification establishes quality and performance requirements and provides a basis for common understanding among producers, distributors and users.

4.2 It is not intended that all grounds meeting this requirement be identical nor have uniform excellence in all respects. Variation in manufacture not covered in this specification may cause some artists to prefer one brand to another, either of which may be acceptable by this specification.

5. Labeling Requirements

5.1 Acrylic dispersion products conforming to this standard will include acrylic, polymer, dispersion polymer, or acrylic dispersion in their description to differentiate them from traditional gessoes.

6. Quality Assurance

6.1 Conditions not covered in this specification that affect the quality of acrylic dispersion grounds:

6.1.1 *Substrate*—Factors such as the texture, gloss, effective pH, porosity, chemical composition and condition of the substrate will affect gloss, gloss uniformity, drying time, adhesion and the flexibility of the dried ground.

6.1.2 *Environmental Conditions*—Factors such as temperature, humidity, airflow and light conditions affect application properties, film formation, drying time and adhesion.

6.1.3 *Storage*—Factors such as aging and high and low temperatures may cause changes in consistency.