



Designation: D7733 – 12 (Reapproved 2016)

Standard Specification for Acrylic Dispersion Ground¹

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

2. Referenced Documents

2.1 *ASTM Standards:*²

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

D3359 Test Methods for Measuring 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.

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.

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.

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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.

3.1.4 *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.

6.2 *Wet Ground Properties:*

6.2.1 *Viscosity/Consistency*—Grounds shall be smooth and consistent except for functional particles that provide tooth. Paste type grounds may not flow or level; ready to brush grounds will flow evenly.