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Endorsed by American
Electroplaters Society
Endorsed by National
Association of Metal Finishers

Standard Specification for Appearance of Electroplated Plastic Surfaces¹

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1. Scope

1.1 This specification limits the amounts and types of visual defects that can be tolerated on decoratively electroplated surfaces of plastic products. The quantity of defects permitted shall be specified by the purchaser.

2. Referenced Documents

2.1 *ASTM Standards*:²

B374 Terminology Relating to Electroplating

D883 Terminology Relating to Plastics

3. Terminology

3.1 *Definitions*—See Terminology B374 for terms relating to electroplating. For terms not relating to electroplating, see Terminology D883.

4. Classification of Surfaces

4.1 The appearance of surfaces will be separately evaluated depending on the prominence of the surface under conditions of ordinary use.

4.1.1 *Surface A*—The surface that appears most prominent to the observer, or most likely to be noticed at first glance.

4.1.2 *Surface B*—The surface (usually adjacent to Surface A) which is somewhat less prominent to the observer.

4.1.3 *Surface C*—The surface not readily seen by the observer except at an angle, or by special observation.

4.1.4 *Surface D*—The surface not visible to the observer under conditions of normal use.

5. Significance and Use

5.1 Where electroplated plastics are used for decorative purposes, the appearance after plating is important. This standard provides a means of evaluating the appearance of the substrate and the coating.

6. Method of Evaluation

6.1 The part under test shall be evaluated in the same relative position as it will normally be viewed under usual conditions of use.

6.2 After proper positioning, the part under test shall be evaluated at a distance of not less than 600 mm nor more than 900 mm from the observer, using diffused daylight-type fluorescent lighting or 1500 to 1600 lm/m² at the surface of the part being inspected.

6.3 The observer shall have 20/20 vision at a distance of 600 to 900 mm, corrected with eyeglasses if necessary.

7. Appearance Guide

7.1 Table 1 limits the extent to which various defects are acceptable on each of the four surface classifications described in Section 4.

7.2 In Table 1 the term “some” assumes that the defects cited are not outstanding, too numerous, or located too closely together. The specific number of defects permitted, and their spacing, shall be specified by the purchaser. The term “no” indicates that the defect cited is not normally acceptable. The term “yes” indicates that the defect cited is normally acceptable.

8. Keywords

8.1 appearance; electroplated plastic

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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.