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#### ANSI/BHMA A156.18-2016 Revision of A156.18-2012



## AMERICAN NATIONAL STANDARD

## FOR

## MATERIALS AND FINISHES



### **SPONSOR**

## **BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.**

AMERICAN NATIONAL STANDARDS INSTITUTE Approved June 30, 2016

#### AMERICAN NATIONAL STANDARD

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#### FOREWORD (Not a part of ANSI/BHMA A156.18)

The general classification of builders hardware includes a wide variety of items which are divided into several categories. To recognize this diversity, a sectional classification system has been established. Each Standard is the result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture the products included in each Section. The total product standards effort is, therefore, a collection of Section Standards, each covering a specific category of items.

In BHMA Standards, performance tests and, where it has been necessary, material and dimensional requirements have been established to ensure safety, security, and stability to which the public is entitled. There are no restrictions on design except for those dimensional requirements imposed for the reasons given above. It is also required that some hardware items fit certain specified cutout dimensions.

This Standard on materials and finishes contains a description of types of finishes and divides them into categories. A numbering system has been established which identifies base material and finish.

Performance test methods for finishes are included. Requirements and exemptions concerning appearance are contained in this Standard.

The BHMA recognizes that new finishes, methods and materials will be developed. With this in mind, the Association plans to update, correct and revise this Standard on a regular basis.

Only finishes produced by three or more manufacturers are listed and are numbered starting with 600. Numbers 001 through 599 are reserved for individual manufacturers to use, as they desire for their own unique finishes.

The finish test methods, code numbers and finish descriptions contained in this Standard are intended to apply to the builders hardware industry. However, the Standard is suitable for use in other industries.

## TABLE OF CONTENTS

1.	SCOPE	5
2.	DEFINITIONS	5
3.	FINISH TEST METHODS AND CRITERIA	6
4.	MATERIALS, CATEGORIES, AND FINISHES	8
5.	FINISH NOMENCLATURE AND CODE NUMBERS	10
API	PENDIX A USERS GUIDE	20

#### 1. SCOPE

1.1 This Standard establishes finish test methods and code numbers for finishes on various base materials. It includes criteria for viewing comparative finishes to the BHMA match plates and establishes five categories of finishes.

#### 2. **DEFINITIONS**

2.1 **Blackened** A surface treated to be light absorbing, and darkened.

2.2 **Bright** A reflective mirror like surface.

2.3 **Coating** Coating is the application, of organic or inorganic materials to, or the conversion of the surface of the base material or substrate, for the changing of appearance, or for protection or both. The topcoat when applied establishes the type of coating for test purposes. When the top coat is transparent, it is often referred to as a clear coat.

2.3.1 **Organic Coating** Coatings with a material containing carbon compounds, excepting cyanides and carbonates, and including mixtures of organic and inorganic materials.

2.3.2 **Inorganic Coating** Coating with metallic or other non-carbonaceous materials or conversion of the surface to an oxide.

2.3.2.1 **Plating** Coating with a metallic deposit by chemical, electro-chemical, mechanical or electro-mechanical means.

2.3.2.2 **Oxidizing** Coating by conversion of the surface of the base material to an oxide by addition of oxygen or removal of hydrogen.

2.3.2.2.1 **Anodizing (aluminum)** Coating by electro-chemical process which converts the surface (aluminum) metal to (aluminum) oxide due to reactions at the anode in an acidic solution.

2.3.3 **Vacuum Applied Coating** Electrochemical or electrophysical (PVD or physical vapor deposition) deposition, operated in a vacuum to deposit an adherent, dense, thin film coating.

2.4 **Corrosion** The result of breakdown or eating away of the base material or substrate, not to be confused with staining. Corrosion of brass or bronze material can be green, brown or pink; corrosion of steel or stainless steel material is red rust, corrosion of aluminum or zinc base material is white.

2.6 **Finish Matching** Equivalent in color, texture, and appearance.

2.7 **Relieved** To set off by contrast through the partial removal of finish, creating a brushed, satin, or antique effect.

2.8 Satin A smooth dull finish with or without a directional pattern.

2.9 **Significant Surfaces** Surfaces of a product that are visible or exposed after the product are installed.

2.10 Stain Any obvious color change other than corrosion, which cannot be removed by rinsing with water.

2.11 **Substrate** The surface to which a coating is applied; may be a coating or the base material.

2.12 **Unstable Finish** A finish that intentionally lacks sufficient protection to ensure consistent color, texture, and appearance for the intended period of use.