



Standard Test Method for Testing Antifouling Panels in Shallow Submergence¹

This standard is issued under the fixed designation D3623; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This test method covers a procedure for testing antifouling compositions in shallow marine environments and a standard antifouling panel of known performance to serve as a control in antifouling studies.

NOTE 1—Subcommittee D01.45 has a revised rating procedure now being evaluated by round robin.

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 application of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

A569/A569M Specification for Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip Commercial (Withdrawn 2000)³

D2200 Practice for Use of Pictorial Surface Preparation Standards and Guides for Painting Steel Surfaces

2.2 U.S. Military Specifications (See also Annex A1):

MIL-P-15328D Primer Pretreatment (Formula 117 for Metals)⁴

MIL-P-15929C Primer Coating, Shipboard, Vinyl-Red Lead (Formula 119—For Hot Spray)⁴

MIL-P-15931B Paint, Antifouling, Vinyl, Red (Formula 121/63)⁴

MIL-S-22698A Steel Plate, Carbon, Structural⁴

3. Terminology

3.1 Definitions:

3.1.1 *shallow submergence*—an immersion to depths between 0.3 and 3.0 m (1 and 10 ft).

3.2 Abbreviations:

3.2.1 The following abbreviations are used in reporting test results:

Al	algae
Barn	barnacles
E.B.	encrusting bryozoans
Hyd	hydroids
Sl	slime
Tun	tunicates
C.F.	completely fouled
F.R.	fouling resistance rating
A.F.	antifouling rating
A.C.	anticorrosive rating
O.P.	overall performance rating
CO	coelenterates
F.B.	filamentous bryozoans
Mol	molluscs
PC	polychaetes

3.2.2 Algal Mups may be delineated by classification notation by phylum as follows:

Al-b	Phaeophyta (brown)
Al-bg	Cyanophyta (blue-green)
Al-g	Chlorophyta (green)
Al-r	Rhodophyta (red)

4. Significance and Use

4.1 This method is designed as a screening test in evaluating antifouling coating systems. Results of the standard system in a specific marine environment are included to assist in interpreting results (see Annex A2).

4.2 Antifouling systems providing positive comparisons with the standard system should be considered acceptable for use in protecting underwater marine structures.

4.3 The degree and type of fouling will vary depending on the environment. Hence, differences in geographic location of test sites, in time of year when panels are exposed, and in weather conditions from 1 year to the next can affect results. Therefore, a fouling census on a nontoxic surface is taken. For

¹ This test method is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.45 on Marine Coatings.

Current edition approved June 1, 2012. Published August 2012. Originally approved in 1978. Last previous edition approved in 2004 as D3623 – 78a (2004). DOI: 10.1520/D3623-78AR12.

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 The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, <http://dodssp.daps.dla.mil>.