Australian Standard™

Paints and related materials—Methods of test

Method 481.5: Coatings—Durability and resistance to fouling—Marine underwater paint systems

METHOD

1 SCOPE

This Standard sets out a procedure for assessing the performance of marine underwater paint systems exposed, under static conditions, to a marine environment as defined by this Standard. It provides for the determination of—

(a) protection of the substrate from deterioration and corrosion with or without cathodic protection; and

(b) durability and resistance to fouling of paint systems applied to the abovementioned substrates.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS		
1580	Paints and related materials—Methods of test	
1580.101.5	Method 101.5:	Conditions of test—Temperature and humidity control
1580.408.2	Method 408.2:	Adhesion—Knife test
1580.505.1	Method 505.1:	pH of water-based paints

3 DEFINITION

For the purpose of this Standard, the following definition applies.

3.1 Chlorinity

The chlorinity of water is equal to the total mass of dissolved chloride, bromide and iodide ions present in 1 kg of test water, expressed as grams of chloride precipitated by silver nitrate solution (see Clause 6.2.1(c)).

NOTES:

1 Since chlorinity includes bromide and iodide ions, its value is marginally greater than that of the chloride content alone and is really a measure of the total halide ion concentration (excluding F^-).

2 For all practical purposes, the concentration of iodide ions in seawater is negligible.

4 PRINCIPLE

The paint systems to be tested are applied to prescribed test panels which are then affixed to a specified test rack and immersed at a specified depth from the test raft. The paint systems are examined periodically for permanent settlement of fouling organisms and for film integrity. The substrate is examined for signs of deterioration or corrosion where appropriate.