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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 10834-2008

Replacing GB 10834-1989

**Ship coatings - Determination of resistance to salt water - Salt
water and hot salt water immersion method**

船舶漆耐盐水性的测定 盐水和热盐水浸泡法

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Foreword

This standard replaces the national standard GB/T 10834-1989 "ship paint salt water and heat measurement brine salt water immersion method." The main technical differences between standard compared with GB/T 10834-1989 as follows:

--- Increase Normative References section.

--- Reference standard GB/T 1764 "Determination of film thickness Law", to GB/T 13452.2 "Paints and varnishes thickness Determination. "

--- Test standards as the original brine. distilled water to make a 3% aqueous solution of sea salt or refined edible natural seawater; instead of days However seawater or reference ASTM D1141.1998 "artificial seawater Standard Technical Specifications" (Appendix A) preparation of artificial seawater.

--- Original standard heat salt water immersion test 21d for a period of adjustment to 7d as a test period. After adjustment

--- test temperature is divided into two situations.

a) at a temperature of $(27 \pm 6) ^\circ\text{C}$ or natural seawater formulated in accordance with Appendix A of the artificial seawater immersion;

b) at a temperature of $(35 \pm 2) ^\circ\text{C}$ natural seawater or artificial seawater prepared in accordance with Appendix A soak 7d is a period, in each cycle The last 2h do temperature $(80 \pm 2) ^\circ\text{C}$ natural seawater or artificial seawater prepared in accordance with Appendix A to soak.

--- Adjust the model size requirements, test preparation and coating.

--- Added Appendix A synthetic seawater formulations. Appendix A of this standard is a normative appendix. The standard proposed by China Petroleum and Chemical Industry Association. This standard by the National Standardization Technical Committee paint pigment. This standard was drafted. China Shipbuilding Industry Corporation seventh twenty-five Institute, Tu Chemical (Shanghai) Co., Ltd., Zhejiang Flying whale paint Co.,

Ltd., Marine Chemicals Research Institute, Shanghai Kailin paint factory, Ningbo flywheel-made paint limited liability company, in the construction of Changzhou coating Chemical RESEARCH Study hospital. Drafters of this standard. Huang Shuzhen, Suchun Hai, Taonai Wang, Wang Jue, Lubo Cen, Qian Ye Miao, Li Huagang, Yuanquan Li. This standard was first published in 1989. This is the first revision. Determination of salt water marine paint Salt and hot salt water immersion method

1 Scope

GB/T 10834-2008 is the Chinese national standard on ship coatings - determination of resistance to salt water - salt water and hot salt water immersion method, in the field of paint and colour industries. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 14 May 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 October 2008. Classification: ICS 87.040, CCS G50. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the test apparatus, and the sample preparation, test conditions, test procedures, test results and evaluation of measured salt water ship paint Set, test report. This standard applies to the determination of the steel hull rust film support system and hot salt water brine properties.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 712 hull structural steel

GB/T 1765 Determination of resistance to humidity, salt spray, weather resistance (artificial acceleration) Preparation of the film

GB/T 1766 Paints and rating methods (GB/T 1766-1995, neq

ISO 4628-1. 1980) clearcoat aging

GB/T 3097-1997 water quality standards

GB/T 3186 Paints, varnishes and raw materials for paints and varnishes - Sampling (GB/T 3186-2006, ISO 15528.2000, IDT)

GB/T 8923-1988 steel surface before painting Rust grades and grade (eqv ISO 8501-1. 1988)

GB/T 9278 paint sample conditioning and testing temperature and humidity (GB/T 9278-2008,

ISO 3270. 1984, Paintsand varnishesandtheirrawmaterials-Temperaturesandhumiditiesforconditioningandtesting, IDT)

GB/T 13452.2 Paints and varnishes - Determination of film thickness (GB/T 13452.2-2008, ISO 2808.2007, IDT)

3 Test device

3.1 Test groove Using saline test tank thermostat, all parts in contact with the test brine by inert material (glass, plastic). Scale test tank Typically. 700mm x 400mm x 400mm, with a lid and thermostatic heating system. Slot throughout brine flow rate and temperature should be substantially Consistent, and to maintain a certain liquid level.

3.2 Mixing System Can be bubbled through the oil-free air (during the cycle refers to the surface traces of oil can not float) or pump circulation stirring. Either stir Mixed mode, must meet so that the entire brine tank are sufficiently stirred purposes.

3.3 Test plate bracket Use is made of non-conductive material, it should enable the test surface perpendicular to the direction of the test plate to maintain 15 ° ~ 20 ° angle. And the tank wall sample is immersed in the tank distance of at least 30mm.

4 Sample preparation and

4.1 Sampling According to GB/T 3186 provisions extraction test product in a representative sample.

4.2 test plate Unless otherwise specified, the test should be used GB 712 sheets of ordinary hot-rolled carbon steel, size. 300mm x 100mm x