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

GB/T 14616-2026

Replacing GB/T 14616-2008

Engine room bilge coating

机舱舱底涂料

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Table of Contents

- 1 Scope
- 4 Requirements
- 5 Test Methods
 - 5.3 Preparation of test plates
 - 5.4 Operating Procedures
 - 5.4.7 Storage stability Pack approximately
- 6.4 Judgment of Test Results

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 14616-2008 "General Technical Requirements for Engine Room and Bottom Coatings". Compared with GB/T 14616-2008, except for the following. Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope has been changed (see Chapter 1, Chapter 1 of the.2008 edition);
- b) A "Terms and Definitions" section has been added (see Chapter 3);
- c) The indicators for "Non-volatile matter content" and "Drying time (surface dry)" have been changed (see Table 1, Table 1 in the.2008 edition);
- d) The specifications for "Adhesion," "Salt Spray Resistance," "Salt Water Resistance," and "Oil-Water Mixture Resistance" have been revised (see Table 2,.2008 edition). Table 2);
- e) The "Fineness" item has been removed (see Table 1 in the.2008 edition);
- f) The item and indicator of "Tolerance to 5% (mass fraction) NaHCO₃" have been added (see Table 2);
- g) Added "Sampling", "Preservation and Test Environment of Test Plates", and "Preparation of Test Plates" (see 5.1, 5.2, 5.3).
- h) The operation of the "Potential Life", "Storage Stability", "Adhesion", "Salt Spray Resistance", "Salt Water Resistance" and "Oil-Water Mixture Resistance" items has been modified. Methods (see 5.4, 3.1.2, 4.4, 4.5, 4.7, and 4.8 in the.2008 edition); Please note that some content in this document may involve

patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Marine Ships (SAC/TC12). This document was drafted by: Luoyang Shipbuilding Materials Research Institute (725th Research Institute of China Shipbuilding Group Corporation) and AVIC Baimu New Materials. Technology Engineering Co., Ltd., Shanghai Huayi Fine Chemical Co., Ltd., Shanghai Kailin Paint Factory, Zhejiang Yutong New Materials Co., Ltd. Guangdong Weiqi New Material Technology Co., Ltd., China Classification Society, Nippon Paint Marine Coatings (Zhangjiagang) Co., Ltd., Xiamen Shuangrui Marine Coatings Limited Liability Company, Zhejiang Flying Whale New Material Technology Co., Ltd., Mega Core Color New Material Technology (Shanghai) Co., Ltd., Tianjin Dewei Coating Materials Technology Co., Ltd., Anhui Jundun Coatings Co., Ltd., Anhui Kailin New Materials Co., Ltd., Jiangsu Lanling Polymer Materials Limited Liability Company, Zhejiang Daqiao Paint Co., Ltd., Tianjin Lighthouse Coatings Industrial Development Co., Ltd., CNOOC Changzhou Coatings and Chemical Research Institute Co., Ltd. The company, Shaanxi Huaqin Technology Industry Co., Ltd., Wuhan Shuanghu Coatings Co., Ltd., Zhejiang Dongyang Technology Co., Ltd., and Weihai Jiamei. Chemical Co., Ltd., Changzhou Tiandun Coatings Co., Ltd., Wuxi Huadong Zinc Shield Technology Co., Ltd., Shanghai Waigaoqiao Shipbuilding Co., Ltd., Guangzhou Shipyard International Limited, Jiangnan Shipyard (Group) Co., Ltd., Hudong-Zhonghua Shipbuilding (Group) Co., Ltd., Dongfang Electric (Fujian) Innovation Research Institute Research Institute Co., Ltd., Qingdao Shuangrui Marine Environmental Engineering Co., Ltd. The main drafters of this document are. Chen Kaifeng, Zeng Dengfeng, Han Bin, Ding Fen, Wu Xiaojun, Lai Huasheng, Zhang Zhouwei, Lu Zhen, Yang Mingliang, and Zhang Yahao. Dureka, Cao Jin, Li Jihua, Zhu Hengheng, Wang Hedong, Chen Mingzheng, Wang Lei, Ao Guolong, Li Min, Chen Kang, Zhang Hui, Que Leifeng, Li Fu, Sun Zhenhua, Han Jianguo, Wang Dongfang, Cai Huanhuan, Han Liwei, Xiao Weiwei, Li Yuanjie, Gong Hui, Wang Tingyong. This document was first published in.1993, revised for the first time in.2008, and this is the second revision. Cabin bilge paint

1 Scope

GB/T 14616-2026 is the Chinese national standard covering the paint in a ship's bilge - a coating that has to survive standing water, oil, heat and the mechanical damage of a working machinery space, and be applied over steel that is rarely perfectly prepared. It replaces GB/T 14616-2008 and has been in force since 1 October 2026. It was issued on 31 March 2026 and takes effect on 1 October 2026, replacing GB/T 14616-2008. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the requirements, test methods, inspection rules, packaging,

marking, transportation, and storage of hull coatings. This document applies to engine room hull coatings used on the parts of the engine room below the corrugated steel plate, including the main engine, auxiliary machinery, and pump room of steel ships.

4 Requirements

4.1 Coating Performance Requirements The performance of the coating should meet the requirements of Table 1.

4.2 Coating performance requirements The performance of the coating should meet the requirements of Table 2.

5 Test Methods

5.1 Sampling Sampling shall be performed in accordance with GB/T 3186, or according to an agreed method. The sampling quantity shall be determined based on the testing requirements. Each test sample shall be inspected and prepared in accordance with the provisions of GB/T 20777.

5.2 Curing of test plates and testing environment Unless otherwise specified, the temperature and relative humidity for curing the test panels shall comply with the requirements of GB/T 9278. Drying time and adhesion should be... Tests shall be conducted under the conditions specified in GB/T 9278, and other items shall be tested under the conditions specified in the relevant test method standards.

5.3 Preparation of test plates

5.3.1 Sample Preparation Multi-component products should be mixed evenly according to the specified component ratio and allowed to mature for the specified time before being plated. If the ratio is within a certain range... When the time is right, the middle value should be taken.

5.3.2 Selection and Treatment of Substrate Unless otherwise specified, the materials of the test plates are shown in Table 3. Unless otherwise specified, the tinplate and steel plates used for testing shall meet the requirements of GB/T 9271, and the treatment of tinplate shall be in accordance with GB/T 9271. The grinding method shall be followed, and the steel plate treatment shall be carried out in accordance with the blasting cleaning method specified in GB/T 9271. The surface cleanliness of the sandblasted steel plate should be... The surface roughness should reach the Sa2 grade specified in GB/T 8923.1, and the surface roughness should reach the "Medium (G)" grade specified in GB/T 13288.1, both manual and... Power tools used for cleaning steel plates should achieve a surface cleanliness level of St3 as specified in GB/T 8923.1. The agreed-upon substrate material type and substrate treatment... The methodology should be noted in the report.

5.3.3 Panel Making Requirements Unless otherwise specified, test plates shall be prepared

according to the provisions of Table

3.Any test plate preparation method different from that specified in this document shall be noted in the report. The coating thickness shall be tested according to one of the determination methods specified in GB/T 13452.2.

5.4 Operating Procedures

5.4.1 General Provisions Unless otherwise specified, only reagents confirmed to be chemically pure or higher and water meeting the requirements of Grade III in GB/T 6682 shall be used in the test. Use distilled or deionized water. The test solution should be pre-adjusted to the test temperature before the test.

5.4.2 State within the container The inspection should be conducted according to the specifications in GB/T 1727 regarding the condition in the container. For multi-component products, each component should be tested separately. Open the container. After stirring with a spatula or stirring rod, observe the uniformity of each component. There should be no lumps, layering, or skin formation.

5.4.3 Non-volatile content The baking process was carried out according to GB/T 1725. The sample weight was (2.0 ± 0.2) g, the baking temperature was (105 ± 2) °C, and the baking time was 2 h. The component products were tested after being mixed evenly according to the specified proportions.

5.4.4 Constructability The sample was coated using the application method specified in the product specifications. No significant resistance, stringing, bubbles, sagging, pinholes, or other defects were observed during the coating process. The image, then, is "unimpeded application of paint".

5.4.5 Applicable Period The test shall be conducted in accordance with GB/T 31416. The test temperature shall be (23 ± 2) °C. The components shall be mixed thoroughly according to the specified proportions and placed in the agreed-upon location. After a certain period, the "state in the container" and "constructability" were examined according to the requirements of

5.4.2 and 5.4.4. The test results met the requirements of

5.4.2 and 5.4.4. The answer is "passed".

5.4.6 Drying time Perform according to GB/T 1728. Surface drying is performed using the touch test method based on surface drying time, while complete drying is performed using the actual drying time and pressure test. The filter paper method shall be followed.

5.4.7 Storage stability Pack approximately

0.5 L of sample into a plastic or glass container, leaving about 10% space inside. Seal the container and place it in a constant temperature drying environment at (50 ± 2) °C. After 30