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

GB/T 6822-2024

Anti-fouling and anti-corrosive paint systems on ship hulls

船体防污防锈漆体系

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 6822-2014 "Hull Antifouling and Antirust Paint System". Compared with GB/T 6822-2014, except for structural adjustments and In addition to editorial changes, the main technical changes are as follows:

- a) The "Scope" has been changed (see Chapter 1, Chapter 1 of the.2014 edition);
- b) Added "Terms and Definitions" (see Chapter 3);
- c) The "Product Classification" has been changed (see Chapter 4, Chapter 3 of the.2014 edition);
- d) Changed "State in container", "Storage stability", "Applicability", "Application period", "Coating film color and appearance", and "Drying time (surface dry)" Project indicators (see Table 1, Table 1, 4.1.1.3, 4.1.2, 4.1.3, 4.1.4 of the.2014 edition); "Adhesion" and "Immersion resistance" were changed Applicable types and indicators of the items "Cathodic disbonding resistance" and "Shallow sea immersion resistance" (see Table 2, 4.3.1, 4.3.2, 4.3.4,.2014 edition) 4.2.1.1); Changed the applicable types of the items "anti-blistering" and "abrasion rate" (Table 2, 4.3.3, Table 1 of the.2014 edition); Changed The indicators of the "dynamic simulation test" project (see Table 2, 4.2.1.3 of the.2014 edition);
- e) Deleted the items of "flash point", "volatile organic compounds (VOC)" and "compatibility with cathodic protection" (see Table 1, 4.2.2);
- f) Added the item and index of "Biocide content (Sibutramide content)" (see Table 1);
- g) Changed the following items. "State in container", "Viscosity", "Storage stability", "Workability", "Application period", "Coating film color and appearance", "Biocide" Biocide

content (total copper content)", "Biocide content (biocide content without copper)", "Adhesion", "Immersion resistance", "Anti-foaming Test methods for the items of "resistance to cathodic disbonding", "shallow sea immersion", "dynamic simulation test" and "abrasion rate" (see 6.4, 2014 Chapter 4 and Chapter 5 of the 2011 edition);

h) Added "sampling", "test environment" and "test panel preparation" (see 6.1,

i) "Safety requirements" was deleted (see Chapter 8 of the 2014 edition);

j) Added "Determination of sibutrazole content in antifouling paint" (see Appendix C);

1 Scope

GB/T 6822-2024 is the Chinese standard for the antifouling and anticorrosive paint systems applied to ship hulls. China builds and repairs more ships than any other country, and the hull coating is the single largest determinant of a vessel's fuel consumption after its hull form: a fouled hull can add tens of per cent to the propulsion power, while a coating that fails leaves the steel corroding for the years until the next docking. The standard treats the system rather than the individual paint, since compatibility between the anticorrosive undercoats, the sealer and the antifouling topcoat is what determines whether it survives. It sets the classification of the systems and their application areas, bottom, boot-top and topsides, the requirements on the constituent paints and on the assembled system, the film thickness, adhesion, flexibility, resistance to seawater and cathodic disbonding, the antifouling performance and its assessment, the requirements on the surface preparation and the application conditions, and the test methods, inspection rules and marking, packaging and storage. It takes effect on 1 June 2025.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 1725 Determination of non-volatile matter content of paints, varnishes and plastics

GB/T 1727-2021 General preparation method for paint films

GB/T 1728-2020 Determination of drying time of paint film and putty film

GB/T 1766-2008 Rating method for aging of paint and varnish coatings

GB/T 2794 Determination of viscosity of adhesives

GB 3097-1997 Seawater quality standards

GB/T 3186 Sampling of paints, varnishes and raw materials for paints and varnishes

GB/T 5206 Terms and definitions for paints and varnishes

GB/T 5210-2006 Paint and varnish adhesion test by pull-off method

GB/T 5370 Shallow sea immersion test method for antifouling paint samples

GB/T 6682-2008 Specifications and test methods for water used in analytical laboratories

GB/T 6750 Paints and varnishes - Determination of density - Pycnometer method

GB/T 7789 Dynamic test method for antifouling performance of ship antifouling paint

GB/T 9761 Paints and varnishes Visual colour comparison of paints

GB/T 10834-2008 Determination of salt water resistance of marine paints - Salt water and hot salt water immersion method

GB/T 12806-2011 Laboratory glassware single-line volumetric flasks