



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 312-09-1708c

dated 25.02.2022

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships and the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships

Item(s) of supervision:

ships under construction

Entry-into-force date:

15.03.2022

Cancel/ amends / adds Circular Letter No.

312-11-1679c

dated 14.12.2021

Number of pages: 1 + 4

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Parts I "Classification", XIII "Materials" and XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" of the Rules for the Classification and Construction of Sea-Going Ships and Part III "Technical Supervision during Manufacture of Materials" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that the Rules for the Classification and Construction of Sea-Going Ships and the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships shall be amended as specified in the Appendices to the Circular Letter.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.
2. Apply the provisions of the Circular Letter during review and approval of the technical documentation on ships contracted for construction or conversion on or after 15.03.2022, in the absence of a contract, on ships requested for review on or after 15.03.2022.

List of the amended and/or introduced paras/chapters/sections:

Rules for the Classification and Construction of Sea-Going Ships:

Part I: Table 2.5

Part XIII: paras 6.5.3.1 and 6.5.3.2

Part XVII: paras 7.11.6.1 and 7.11.6.2

Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships:

Part III: paras 3.5.1 — 3.5.3

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**Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)**

Nos.	Amended paras/chapters/ sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
1	Rules for the Classification and Construction of Sea-Going Ships, Part I, Table 2.5	In para 2.33, conditions for assignment of distinguishing mark ICE-COAT have been specified	312-09-1708c of 25.02.2022	15.03.2022
2	Rules for the Classification and Construction of Sea-Going Ships, Part XIII, para 6.5.3.1	Requirements for application of ice resistant coatings have been specified	312-09-1708c of 25.02.2022	15.03.2022
3	Rules for the Classification and Construction of Sea-Going Ships, Part XIII, para 6.5.3.2	New para containing requirements for application of ice resistant coatings has been introduced	312-09-1708c of 25.02.2022	15.03.2022
4	Rules for the Classification and Construction of Sea-Going Ships, Part XVII, para 7.11.6.1	Para has been deleted, para 7.11.6.2 has been renumbered 7.11.6.1	312-09-1708c of 25.02.2022	15.03.2022
5	Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, Part III, para 3.5.1	Requirements for technical supervision when applying ice resistant coatings have been specified	312-09-1708c of 25.02.2022	15.03.2022
6	Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, Part III, para 3.5.2	Requirements for technical supervision when applying ice resistant coatings have been specified	312-09-1708c of 25.02.2022	15.03.2022
7	Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, Part III, para 3.5.3	References have been specified	312-09-1708c of 25.02.2022	15.03.2022

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2022,
ND No. 2-020101-152-E

PART I. CLASSIFICATION

2 CLASS OF A SHIP

1 **Table 2.5. Item 2.33** is replaced by the following text:

"

2.33 Distinguishing mark confirming application of ice-resistant coating for protection of shell plating of the ship's hull		
ICE-COAT	Mandatorily added in the class notation of icebreakers and ice class ships when protection of shell plating with ice-resistant coating is provided in case of reduction of average annual diminution of shell plating as a result of corrosion wear and abrasion (25 % or 50 %). In other cases (when protection of shell plating with ice-resistant coating is provided without reduction of average annual diminution of shell plating as a result of corrosion wear and abrasion), may be added at the shipowner's discretion	Rules for the Classification and Construction of Sea-Going Ships Part II "Hull", 3.10.4 Part XIII "Materials", 6.5.3 Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships Part III "Technical Supervision during Manufacture of Materials", 3.5.1

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PART XIII. MATERIALS

6 PLASTICS AND MATERIALS OF ORGANIC ORIGIN

2 Para 6.5.3.1 is replaced by the following text:

"6.5.3.1 Coating is considered ice-resistant if it provides the protection of the ship's hull shell against the external actions under the ice navigation conditions demonstrating the performance, which meets the requirements in Table 6.5.3.1.

Table 6.5.3.1

Nos.	Characteristic	Value			
		Group 1 for icebreakers		Group 2 for ice class ships	
		Class I	Class II	Class I	Class II
1	Durability as per ISO 12944-6 for a corrosivity category Im2 in compliance with ISO 12944-2 (refer to 2.5.1)	High		High	
2	Adhesion by a cross-cut test method as per ISO 2409 or X-cut test method as per ISO16276-2 after testing for resistance to low temperature exposure (refer to 2.5.2.3) depending on the thickness and type of ice-resistant coating.	not more than 3		not more than 3	
3	Adhesion strength as per ISO 4624 (refer to 2.5.3.4)	above 16 MPa	above 10 MPa	above 10 MPa	above 8 MPa
4	Abrasive wear after 1000 cycle tests on the Taber's abrader (wheel CS-17) (refer to 2.5.4)	not more than 80 mg	not more than 120 mg	not more than 120 mg	not more than 160 mg
5	Impact resistance as per ISO 6272 (refer to 2.5.5)	not less than 5 J		not less than 5 J	
6	Cathode disbondment as per ISO 15711 (method A) (refer to 2.5.6) for coatings compatible with cathode protection	less than 5 mm after three month testing, less than 8 mm after six month testing		less than 5 after three month testing, less than 10 mm after six month testing	
7	Coefficient of sliding friction for ice (refer to 2.5.7)	not exceeding 0,05	not exceeding 0,08	not exceeding 0,05	not exceeding 0,08

Ice resistant coatings shall be mandatorily applied for ice class ships and icebreakers in case of reduction of average annual diminution of shell plating as a result of corrosion wear and abrasion in accordance with 3.10.4.1, Part II "Hull", as well as in case of assignment of distinguishing mark **ICE-COAT** at the shipowner's discretion (without reduction of average annual diminution of shell plating as a result of corrosion wear and abrasion). The coatings shall be divided into groups and classes in accordance with Table 6.5.3.1."

3 New para 6.5.3.2 is introduced reading as follows:

"6.5.3.2 Ice resistant coatings of ice class ships shall be applied not less than 1,0 m above the upper boundary and not less than 1,0 m below the lower boundary of ice strengthening. Ice resistant coatings of icebreakers shall be applied to the underwater part of the hull and its side at the height not less than 1,0 m above the upper boundary of ice strengthening. The above requirements to the boundaries of ice resistant coating application for ships of ice classes

Ice1 — Ice3 may be reduced to the boundary of ice strengthening on agreement with the Register taking into account structural particulars of the ship.

Ice resistant coating is not required in case of application of clad steel in the area of ice strengthening, if relevant means of electrochemical protection against corrosion are installed.

Documentation of coating manufacturer shall be agreed between the shipowner, shipyard and coating manufacturer and shall be submitted to the Register for review.

When applying several layers of ice resistant coating of ice class ships and icebreakers, it is recommended to use different colours for each layer."

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2022,

ND No. 2-020101-152-E

PART XVII. DISTINGUISHING MARKS AND DESCRIPTIVE NOTATIONS IN THE CLASS NOTATION SPECIFYING STRUCTURAL AND OPERATIONAL PARTICULARS OF SHIPS

7 REQUIREMENTS FOR SHIP EQUIPMENT TO ENSURE LONG-TERM OPERATION AT LOW TEMPERATURE

4 **Para 7.11.6.1** is deleted. **Para 7.11.6.2** is renumbered **7.11.6.1**.

RULES FOR TECHNICAL SUPERVISION DURING CONSTRUCTION OF SHIPS AND MANUFACTURE OF MATERIALS AND PRODUCTS FOR SHIPS, 2022,

ND No. 2-020101-156-E

PART III. TECHNICAL SUPERVISION DURING MANUFACTURE OF MATERIALS

3 NON-METALLIC MATERIALS

5 **Paras 3.5.1 — 3.5.3** are replaced by the following text:

3.5.1 Ice resistant coatings are applied on ships in accordance with the requirements of 3.10, Part II "Hull" and 6.5.3, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships.

3.5.2 Ice resistant coatings used in case of reduction of average annual diminution of shell plating as a result of corrosion wear and abrasion (by 25 % or 50 %) in accordance with 3.10.4, Part II "Hull" of the Rules for the Classification and Construction of Sea-Going Ships shall be applied in accordance with the additional procedure of the Register technical supervision specified in 3.5.11.

If the ship is assigned distinguishing mark **ICE-COAT** at the shipowner's discretion (i.e. without reduction of average annual diminution of shell plating as a result of corrosion wear and abrasion), additional procedure of the technical supervision during application of ice-resistant coating specified in 3.5.11 shall not be carried out.

3.5.3 The documentation being submitted for approval, which defines the coating properties, composition and characteristics, shall also contain the following data:

type of a coating system (epoxy and epoxy with the minimum solvent content);

coating colour;

data on incompatibility with cathodic protection;

reports on coating testing according to 6.5.3, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships and 2.5 of these Rules conducted in

the RS-recognized laboratories or in the laboratories with the attendance of the RS surveyor according to the agreed test program;

description of the application process of ice resistant coatings (refer to 3.5.4);

manufacturer's recommendations on repair of coating in service.".