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

GB/T 39085.2-2020

**Ships and marine technology - Marine radar reflectors - Part 2:
Active type**

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Foreword

GB/T 39085 "Marine Radar Reflector for Ships and Marine Technology" is planned to be divided into the following parts.

---Part 1.Passive type;

---Part 2.Proactive.

This part is Part 2 of GB/T 39085.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

The translation method used in this part is equivalent to ISO 8729-2:2009 "Marine Radar Reflector for Ships and Marine Technology Part 2.Main

Dynamic".

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T 27025-2019 General requirements for the competence of testing and calibration laboratories (ISO /IEC 17025:2017, IDT);

---GB/T 15868-1995 Global Maritime Distress and Safety System (GMDSS) marine radio equipment and maritime navigation equipment

General requirements test methods and required test results (IEC 60945.1994, IDT).

This part was proposed and managed by the National Marine Electrical and Electronic Equipment Standardization Technical Committee (TC531).

This section was drafted. China Shipbuilding Industry Comprehensive Technology and Economic Research Institute.

1 Scope

Generally, small ships built of glass fiber reinforced plastic (GRP) may not be conducive to radar

The reflection of the signal. In the case of radar as the main observation tool used by ships at sea, the International Maritime Organization believes that in GB/T 39085

In this part of this section, it is necessary for small ships below 150GT to be equipped with radar reflectors to enhance their radar echoes, thereby improving the ship's radar

Visibility.

In accordance with the requirements of the IMOMSC.164(78) resolution, this Part specifies the minimum requirements for radar reflectors to improve the performance of small ships.

Radar echo.

This section provides specifications for the structure, performance, test, inspection and installation of this type of radar reflector.

Note. The requirements extracted from the IMOMSC.164(78) resolution are printed in italics.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

ISO 17025 General requirements for the competence of testing and calibration laboratories (General requirements for the competence of tes-

ting and calibration laboratories)

IEC 60945 Marine navigation and radio communication equipment and systems General requirements test methods and required test results (Marine

navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results)

ITU-RSM.329 Unwanted emission in the spurious domain (Unwanted emission in the spurious domain)

ITU-RSM.1541 Unwanted emission in the out-of-band domain

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Radar reflector

A device designed to enhance radar echoes from ships with a small radar cross-sectional area.

3.2

Active radar reflector active radar reflector

A device that uses the method of receiving, amplifying and retransmitting radar signals to enhance its echo.

Note. Active radar reflectors are usually also called radar target enhancers (radar target enhancer, RTE).

3.3

Radar cross section; RCS

Equivalent to the echo area, its value is the unity of the scattered power per unit solid angle in the specified direction and the plane wave incident from the specified direction.

4pi times the ratio of bit area power.