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

GB/T 45143-2024

**Shipbuilding and marine structures - Inflatable liferafts -
Materials**

造船与海上结构物 气胀式救生筏 材料

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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. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Technical Committee for Ship Outfitting Standardization (SAC/TC129). This document was drafted by: China Shipbuilding Industry Corporation Comprehensive Technical and Economic Research Institute, Yantai Huayang Lifesaving Equipment Manufacturing Co., Ltd., Zhangjiagang Hongyu New Materials Co., Ltd., Shenzhen Yihe Technology Co., Ltd., China Classification Society Wuhan Standards Research Institute, Hangzhou Applied Acoustics Institute, Shanghai Ship Technology Research Institute, Jiangsu University of Science and Technology. The main drafters of this document are: Sun Yaogang, Wang Benchuan, Wang Hao, Xu Weihong, Chang Zengzhu, Ouyang Tao, Lai Qiuting, Xiang Yuanpu, Yin Tao, Zhan Niankun, Zhang Wanpeng, Wang Yiliang, Sun Yunliang, Du Hai, Wang Hai, Niu Jun, Sun Xin, Tang Weiwei, Wang Liting, Wang Chen, Jiang Xiaowei, Hu Jiexin, Kuang Wenqi, Chen Jiabin, Peng Cong. Inflatable life raft materials for shipbuilding and offshore structures

1 Scope

GB/T 45143-2024 specifies the materials for inflatable liferafts. A liferaft is packed in a container on an exposed deck, unopened, for ten years, subject to sun, salt, heat and cold, and it is then required to inflate and to hold air for days with people in it; the coated fabric is therefore the product, and every requirement in the standard follows from that service. It sets the requirements on the base fabric and the coating, the mass per unit area and the thickness, the tensile and tear strength and the adhesion of the coating, the air retention and permeability, the seam strength by the joining method used, the resistance to ageing by heat, ultraviolet and ozone, the low temperature flexibility and the behaviour after cold folding, the resistance to oil, seawater and mould, and the flame retardance; then the sampling and the test methods for each, the inspection rules and the marking and storage.

It takes effect on 1 April 2025.

This document specifies the classification, general requirements, technical requirements and test methods for inflatable liferaft fabrics. This document is applicable to the manufacture of fabrics for inflatable life rafts equipped on ships and offshore facilities that meet the requirements of the International Maritime Organization SOLAS Convention. Make and test.

2 Xenon arc lamp

GB/T 18426-2021 Rubber or plastic coated fabrics low temperature bending test

GB/T 23303-2009 Ships and marine technology - Adhesive tape for inflatable rescue boats

ISO 1421.2016 Rubber-orplastics-coated fabrics - Determination of tensile strength and elongation at break

ISO 1817.2024 Rubber, vulcanized or thermoplastic rubber - Test method for resistance to liquids

ISO 2411.2024 Rubber-orplastics-coatedfab-

ISO 3011.2021 Rubber-orplastics-coated fabrics - Determination of resistance to ozone cracking under static conditions

ISO 5978.2023 Rubber-orplastics-coatedfabrics-Determination of the resistance to adhesion of rubber or plastics-coated fabrics life-saving appliances) and its amendment

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 TPU coated fabrics A composite material formed by tightly combining the base fabric and TPU membrane material through coating technology.