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

GB/T 45359.1-2026

**Fibre ropes for offshore stationkeeping - Part 1: General
specification**

海工平台定位系泊纤维绳索 第1部分：通用规范

(English Translation)

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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 is Part 1 of GB/T 45359 "Fiber Ropes for Positioning and Mooring of Offshore Platforms". GB/T 45359 has published the following...

part.

---Part 1: General Specifications;

---Part 2: Polyester Fiber;

---Part 5: Aramids.

This document is equivalent to ISO 18692-1:2018 "Fiber ropes for positioning and mooring of offshore platforms - Part 1: General specifications".

The following minimal editorial changes have been made to this document.

---Added normative reference to ISO 18692 (all parts) (see Chapter 2), as ISO 18692-1:2018 references it in many places.

The ISO 18692 series of standards are explicitly referenced in Chapter 2 to facilitate the application and implementation of this document.

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 by the China National Textile and Apparel Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Industrial Textiles (SAC/TC606).

Introduction

Regarding fiber optic mooring ropes for offshore platforms, the International Organization for Standardization (ISO) has published ISO 18692-1:2018.

ISO 18692-2:2019, ISO 18692-3:2020, ISO 18692-4:2023, and ISO 18692-5:2024 series of standards.

my country has also successively transformed international standards into national standards. GB/T 45359 "Fiber Ropes for Positioning and Mooring of Offshore Platforms" is proposed to be formulated by the following...

Partial composition.

---Part 1: General Specifications. The purpose is to specify all unused fiber rope materials used for positioning and mooring of offshore platforms.

General requirements.

---Part 2: Polyester Fibers. The purpose is to specify the main features of unused polyester fiber ropes used for positioning and mooring of offshore platforms.

Characteristics and test methods.

---Part 3: High-modulus polyethylene fiber. The purpose is to specify unused high-modulus polyethylene fibers for positioning and mooring of offshore platforms.

Main properties and test methods of propylene fiber ropes.

---Part 4: Polyarylate Fibers. The purpose is to specify the requirements for unused polyarylate fiber ropes used for positioning and mooring of offshore platforms.

Key characteristics and test methods.

---Part 5: Aramid. The purpose is to specify the main characteristics and test results of unused aramid ropes for positioning and mooring offshore platforms.

Verification method.

Offshore platform positioning and mooring fiber ropes Part 1: General Specifications

1 Scope

This document specifies the key characteristics of unused fiber ropes for positioning and mooring offshore platforms and describes the corresponding test methods.

Positioning and mooring fiber ropes are made of different core materials.

This document provides general requirements applicable to all materials. Other parts of the ISO 18692 series of standards provide requirements not covered in this document.

Specific requirements for each (rope core) material.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

Note: GB/T 40273-2021 Fiber Rope Terminology (ISO 1968:2004, MOD) ISO 2060 Determination of linear density of yarns from packages (Textiles-Yarnfrompackages-Determination of) Note. GB/T 4743-2009 Determination of linear density of yarn in package (ISO 2060:1994, MOD) ISO 2062 Textiles - Determination of breaking strength and elongation at break of single yarn in packages (CRE) [Textiles-Yarnsfrom] Note. GB/T 3916-2013 Textiles - Determination of breaking strength and elongation at break of single yarn in packaged yarn (CRE method) (ISO 2062:2009) MOD) ISO 7500-1 Inspection and calibration of static uniaxial testing machines for metallic materials - Part 1: Measurement of tensile and/or compressive stresses by these machines chines-Part 1: Tension/compression testing machines-Calibration and verification of the force-measuring system Note. GB/T 16825.1-2022 Inspection and Calibration of Static Uniaxial Testing Machines for Metallic Materials - Part 1: Force Measurement of Tensile and/or Compressive Testing Machines System testing and calibration (ISO 7500-1:2018, IDT)

Note 2: GB/T 45359.2-2025 Offshore platform positioning and mooring fiber ropes - Part 2: Polyester fibers (ISO 18692-2:2019, IDT)

Note 3: GB/T 45359.5-2025 Offshore platform positioning and mooring fiber ropes - Part 5: Aramid (ISO 18692-5:2024, IDT) ASTM D885 Test methods for tire cords, tire cord fabrics and industrial filament yarns made of man-made organic fibers (Standard) organic-basefibers