

ICS 77.140.65

CCS H 49



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

GB/T 43485-2023

Fully locked cables for building structures

建筑结构用密封索

Issued on: December 28, 2023

Implemented on: July 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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: Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents: This document is proposed by the China Iron and Steel Industry Association: This document is under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC183): This document was drafted by: Guizhou Steel Rope Co., Ltd., China Steel Structure Association, Guangdong Jianyijia Hardware Products Co., Ltd., Juli Cable Tool Co., Ltd., Beijing Architectural Engineering Research Institute Co., Ltd., Beijing University of Technology, North China Institute of Science and Technology, Shaanxi Provincial Architectural Science Research Institute Co., Ltd., Tianjin University, Jiangsu Zhongmin Steel Structure Co., Ltd., Jiangsu Lanhua Construction Co., Ltd., Shanghai Haibo Membrane Structure Co., Ltd: Company, Tianjin Rongcheng United Steel Group Co., Ltd., and Metallurgical Industry Information Standards Research Institute: The main drafters of this document: Ma Xianhong, Xue Suduo, Lu Ping, Ren Cuiying, Leng Mingjian, Shang Jingzhen, Wu Jinzhi, Chen Zhihua, Yang Chao, Si Bo, Qin Jie, Liu Mingliang, Wang Yuanqing, Huang Xianghuai, Wang Hui, Liu Feng, Liu Jian, Luo Zhian, Wang Lingjun, Chen Yansong, Chen Ronghua, Huang Xin, Wang Zeqiang, Sun Guojun, Wang Liwei, Liu Jian, Han Changhai, Su Diyao: Sealing ropes for building structures

1 Scope

China's national standard for fully locked coil cables used in building structures. A fully locked coil rope has an outer layer of Z-shaped wires that interlock with each other, forming a smooth, almost solid cylindrical surface rather than the helical grooves of an ordinary

stranded rope. That construction gives it three properties that structural use requires: a higher metallic cross-section for its diameter and therefore a higher modulus, so the structure deflects less; a sealed surface that keeps water out and protects the core, which is what allows a service life measured in decades on an exposed structure; and a form that mates cleanly with the sockets at its ends. It is the cable of stadium roofs, cable-stayed facades, footbridges and tensile structures, where the cable is visible, is expected to last the life of the building, and cannot be replaced without dismantling what it holds up.

This document stipulates the classification, code and marking, ordering content, materials and technical requirements of sealing ropes with a cable body diameter of 20mm~200mm: requirements, inspection methods, inspection rules, packaging, marking and quality certificates: This document is applicable to sealing cables for various building structures such as sports venues, exhibition venues, transportation hubs, commercial centers, and material storage (hereinafter Referred to as "sealing cord"): Sealing cables used in bridges and other areas may be implemented with reference to this document: This document does not apply to sealing ropes made of stainless steel:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 196-2003 Basic dimensions of ordinary threads

GB/T 238 Test method for repeated bending of metallic material wires GB/T 239:

4 Trapezoidal thread Part 4: Tolerances

GB/T 7233:1-2023 Ultrasonic testing of steel castings Part 1: General purpose steel castings

GB/T 8358 Method for determination of breaking tension of steel wire ropes

GB/T 8706 Wire rope terminology, marking and classification

GB/T 9444-2019 Magnetic particle testing of cast steel castings

GB/T 14408 Low alloy steel castings for general engineering and structural purposes

GB/T 21965 Wire rope acceptance and defect terminology

GB/T 24191 Determination method of actual elastic modulus of steel wire rope

GB/T 33084 Technical conditions for large alloy structural steel forgings

JB/T 6402 Technical conditions for large low alloy steel castings JGJ257 Technical regulations for cable structures NB/T 47013:4-2015 Non-destructive testing of pressure equipment Part 4: Magnetic particle testing

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