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

GB/T 46840-2025

Grout seal devices

灌浆封隔装置

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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 involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Petroleum and Chemical Industry Federation. This document is under the

jurisdiction of the National Technical Committee on Standardization of Rubber and Rubber Products (SAC/TC35). This document was drafted by: Hengxiang Technology Co., Ltd., Offshore Oil Engineering Co., Ltd., and China Power Construction Group East China Survey and Design Institute. Design Institute Co., Ltd., Shanghai Survey and Design Institute Co., Ltd., Guangdong Electric Power Design Institute Co., Ltd. of China Energy Engineering Group Company, China Power Construction Group Central and Southern Survey and Design Institute Co., Ltd., China Communications Construction Third Harbor Engineering Co., Ltd. Southern Engineering Co., Ltd., Xi'an Xiangyang Aerospace Materials Co., Ltd. Limited Liability Company, Liaoning Futai Chemical Machinery Co., Ltd., Dongying Changrui Petroleum Machinery Parts Co., Ltd., Hubei Provincial Transportation Planning and Design Institute Computer Science and Technology Research Institute Co., Ltd., Dongying Huake Petroleum Technology Development Co., Ltd., and Beijing Huateng Testing and Certification Co., Ltd. The main drafters of this document are. Ma Meiqin, Li Huailiang, Jia Xianlin, Wang Jinxi, Zhang Shouguo, Wang Baoji, Lei Yongxiao, Sun Jianbang, and Pan Xiaowei. Li Xinchao, Wang Lihe, Han Fuchen, Sun Zhenzhou, Liu Haichao, Lü Guoer, Yin Ting, Zheng Can, Song Chu, Zhang Yasheng, Jing Xiaoyan, Xue Peijing, Zhang Heng Zhang Chunxiang, Gao Yundong, Chang Ying, Xu Leichang. Grouting sealing device

1 Scope

GB/T 46840-2025 is the Chinese national standard covering the packer that isolates the interval being grouted - its setting and its seal against the borehole wall, the pressure it must hold while the grout is injected, and the retrieval or the sacrifice of the device afterwards. First edition. Issued on 2 December 2025, it has been in force since 1 July 2026.

This document establishes the classification, structure, marking, and specifications of grouting sealing devices, and specifies the appearance quality, dimensions and tolerances, and technical requirements. The document describes the corresponding test methods for aspects such as inspection rules, marking, packaging, transportation and storage, on-site protection and acceptance. This document applies to the design, production, inspection, and use of grouting sealing devices for above-water or underwater structures.

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.

GB/T 528 Determination of tensile stress-strain properties of vulcanized rubber or

thermoplastic rubber

GB/T 529 Determination of tear strength of vulcanized rubber or thermoplastic rubber (trouser-shaped, right-angled and crescent-shaped specimens)

GB/T 567.4 Rupture disc safety devices - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Active Grout Packer High-pressure media (water or gas) are artificially injected into the annular cavity of the elastomer through a pressurization pipeline, causing it to expand and deform, thereby completing the grouting process. Cement grout sealant for the annular gap.

3.2 passive grout seal It cannot be manually intervened; the cement grout seal of the annular gap in the grouting section is completed through the deformation of its own structure under stress.

4 Type testing

GB/T 1591 Low-alloy high-strength structural steel

GB/T 1682-2014 Determination of Low-Temperature Brittleness of Vulcanized Rubber - Single Sample Method

GB/T 1689 Determination of abrasion resistance of vulcanized rubber (using Akron abrasion tester)

GB/T 1804-2000 General tolerances - Tolerances for linear and angular dimensions without specified tolerances

GB/T 2942 Determination of Static Bond Strength between Vulcanized Rubber and Fiber Cord - Extraction Method

GB/T 3512 Accelerated aging and heat resistance test of vulcanized rubber or thermoplastic rubber in hot air

GB/T 3672.1-2025 Tolerances of rubber products - Part