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

GB 28375-2025

Replacing GB 28375-2012

Fireproof coating for concrete structure

混凝土结构防火涂料

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Product classification, grading code and marking	1
4.1 Classification	1
4.2 Fire resistance classification code	2
4.3 Mark	2
5 General requirements	2
6 Technical Requirements	3
6.1 Fire retardant coating for firebreaks	3
6.2 Tunnel fire retardant coating	3
6.3 Other fire retardant coatings for concrete structures	4
7 Test methods	5
7.1 Physical and chemical properties test environmental conditions	5
7.2 Preparation of physical and chemical properties test pieces	6
7.3 Drying time	7
7.4 Bond strength	7
7.5 Dry density	7
7.6 Compressive strength	7
7.7 Acid resistance	8
7.8 Alkali resistance	8
7.9 Heat resistance	8
7.10 Moisture and heat resistance	8
7.11 Freeze-thaw cycle resistance	8
7.12 Salt spray corrosion resistance	9
7.13 Resistance to ultraviolet radiation	9
7.14 Smoke toxicity	9
7.15 Vibration resistance	9
7.16 Fire resistance	9
8 Inspection Rules	12
8.1 Inspection categories	12
8.2 Batching and Sampling	12

8.3 Decision Rules	12
9 Marking, packaging, transportation and storage	13
9.1 Sign	13
9.2 Packaging	13
13 Appendix A (Normative) Vibration resistance test 14 A.1 Test apparatus 14 A.2	
Specimen 14 A.3 Test procedure 15 A.4 Test results.....	15

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. This document replaces GB 28375-2012 "Fire retardant coatings for concrete structures". Compared with GB 28375-2012, except for editorial changes, The main technical changes are as follows:

- a) The scope of application of fire retardant coatings for concrete structures has been changed (see Chapter 1, Chapter 1 of the.2012 edition);
- b) The product classification has been changed (see Chapter 4, Chapter 4 of the.2012 edition);
- c) The technical requirements for dry density and smoke toxicity of fire retardant coatings for fire dams (see 6.1 of the.2012 edition) were deleted, and the requirements for Status and water resistance test items, defect classification (see 6.2 of the.2012 edition);
- d) The technical requirements for fire resistance performance have been changed (see 6.1.2, 6.2.2, 6.2 of the.2012 edition);
- e) Added technical requirements for vibration resistance (see 6.2) and test methods (see 7.15);
- f) Added technical requirements for resistance to ultraviolet radiation (see 6.2) and test methods (see 7.13);
- g) Added other technical requirements for the physical, chemical and fire resistance properties of fire retardant coatings for concrete structures (see 6.3);
- h) The size of the test specimen substrate has been changed (see 7.2.1, 7.2.2 of the.2012 edition);

1 Scope

GB 28375-2025 is the Chinese national standard on fireproof coating for concrete structure, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 30 May 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2026. Classification: ICS 13.220.50, CCS C84. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document defines the terms and definitions of concrete structure fire retardant coatings, provides product classification, classification codes and markings, and stipulates general Requirements, technical requirements, inspection rules, as well as marking, packaging, transportation and storage, describe the corresponding test methods. This document applies to fire retardant coatings on the surfaces of firebreaks, tunnels and other concrete structures.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 1728-2020 Determination of drying time of paint film and putty film

GB/T 9265 Determination of alkali resistance of architectural coatings

GB/T 9969 General principles for instructions for use of industrial products

GB/T 9978.1 Fire resistance test methods for building components Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Coated on the surface of firebreaks, tunnels and other concrete structures, it can form a fire-resistant and heat-insulating protective layer to improve the fire resistance limit of the structure. coating.

4 Product classification, grading codes and markings

4.1 Classification Concrete structure fire retardant coatings are classified into the following product categories according to the protected objects.

- a) Fire retardant coating for fire embankments. Fire retardant coating used for the concrete surface of fire embankments in petrochemical storage tank areas;
- b) Tunnel fire retardant coating. fire retardant coating used for the surface of concrete structures of highway, railway and urban traffic tunnels;
- c) Other concrete structure fire retardant coatings. Concrete coatings for other industrial and civil buildings (structures) other than those used on tunnels and fire dike surfaces. Fire retardant coating for soil surface. According to the place of use, it can be divided into indoor concrete structure fire retardant coating and outdoor concrete structure fire retardant coating. coating.