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

GB 46039-2025

Safety technical specification for concrete admixtures

混凝土外加剂安全技术规范

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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 Ministry of Industry and Information Technology of the People's Republic of China. Safety technical specifications for concrete admixtures

1 Scope

GB 46039-2025 is the Chinese national standard on safety technical specification for concrete admixtures, in the field of construction materials and building. 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 1 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2026. Classification: ICS 91.100.30, CCS Q12. 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 specifies the safety technical requirements and test methods for concrete admixtures (hereinafter referred to as "admixtures"). This document applies to admixtures for cement concrete.

2 Normative references

The contents of the following documents constitute the 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 6679 General Rules for Sampling of Solid Chemical Products

GB/T 6680 General Rules for Sampling of Liquid Chemical Products

GB/T 8075 Terminology of concrete admixtures

GB/T 8076 Concrete admixtures

GB/T 8077 Test method for homogeneity of concrete admixtures

GB/T 18588 Test method for ammonia release from concrete admixtures

GB/T 31040 Test method for residual formaldehyde in concrete admixtures

GB/T 50081 Test methods for physical and mechanical properties of concrete

3 Terms and Definitions

The terms and definitions defined in GB/T 8075 and the following apply to this document.

3.1 Added before or during concrete mixing to improve the properties of fresh concrete and (or) hardened concrete. Materials whose addition amount does not exceed 5% of the mass of cementitious materials.

3.2 Release of ammonia emitted ammonia Ammonia released by admixtures in alkaline environments.

3.3 residual formaldehyde Formaldehyde existing in the admixture in a free state and formaldehyde depolymerized from polyoxymethylene.

3.4 Tested concrete test concrete Concrete with admixtures that meets the test conditions of relevant standards. [Source: GB/T 8075-2017, 6.14, modified]

3.5 The ratio of the compressive strength of the tested concrete to that of the reference concrete at the same age.