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**Test method for determining chemical shrinkage of cement
paste**

水泥浆体化学收缩试验方法

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and Definitions

3.1 Chemical shrinkage of cement paste

4 Principles of the Method

5 Laboratory and Equipment

5.1 Laboratory

5.2 Equipment

5.2.1 Balance

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 is required.

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.

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This document was drafted by: China Building Materials Science Research Institute Co., Ltd., Guangzhou Building Materials Industry Research Institute Co., Ltd., Zhejiang Jiangyicheng Testing Co., Ltd., China Railway Seventh Bureau Group Wuhan Engineering Co., Ltd., Guangdong Zhidao Advanced Civil Engineering Materials Technology Research Co., Ltd., Meizhou Quality Metrology Supervision and Inspection Institute of Guangdong Province, Guangdong Tianxin Electric Power Engineering Inspection Co., Ltd., Chongqing Traffic Engineering Quality Inspection Co., Ltd.

Company, Beijing Jiutongqu Testing Technology Co., Ltd., Henan Communications Vocational and Technical College, Jiangsu Fangjian Quality Appraisal and Testing Co., Ltd., Guangdong Huihe Engineering Testing Co., Ltd., Foshan Sanshui District Construction Engineering Quality Testing Station, Jiangxi Huaheng Engineering Testing Co., Ltd., Guangzhou Cheng Anluqiao Testing Co., Ltd., Zhejiang Huazheng Testing Co., Ltd., China

Railway Construction Investment Testing and Inspection Co., Ltd., CCCC Second Harbor Engineering Bureau Co., Ltd.

Company, CCCC First Harbor Engineering Survey and Design Institute Co., Ltd., Zhuji Hongtai Engineering Inspection Co., Ltd., China Railway Shanghai Engineering Bureau Group Co., Ltd.

Co., Ltd., Cangzhou Jingtong Engineering Testing Co., Ltd., Guangxi Communications Construction Engineering Testing Consulting Co., Ltd., China Communications First Highway Engineering Bureau Haiwei Engineering Construction Co., Ltd.

Co., Ltd., Xinjiang Fukang Tianshan Cement Co., Ltd., Nanjing Gongda Construction Engineering Technology Co., Ltd., China 22nd Metallurgical Group Co., Ltd., Zhejiang Xinze Engineering Testing Co., Ltd., China Water Resources and Hydropower Third Engineering Bureau Co., Ltd., Hubei Zhengping Water Conservancy and Hydropower Engineering Quality Testing Co., Ltd.

Co., Ltd., Guangdong Yihua Traffic Engineering Testing Co., Ltd., Shentie Fangyuan Testing Technology Co., Ltd., China Railway 24th Bureau Group Bridge Construction Co., Ltd.

Co., Ltd., Suzhou Xiangcheng Testing Co., Ltd., Huizhou Water Group Zhenzhun Testing Center Co., Ltd., Jiangsu Yuheng Engineering Quality Testing Co., Ltd.

Co., Ltd., Shanxi Transportation Construction Engineering Quality Inspection Center (Co., Ltd.), Shandong Jinchao Ronghui Testing Technology Co., Ltd., Zhejiang Gutai Engineering Testing Technology Co., Ltd., Henan China Construction Western Construction Co., Ltd., China Railway Construction Group Co., Ltd. Hainan Branch, CCCC Wuhan Zhi International Engineering Consulting Co., Ltd., Tianjin Xinhai Petroleum Engineering Technology Co., Ltd., Sujiaoke Group Testing and Certification Co., Ltd., Hefei China Construction Ready-mixed Concrete Co., Ltd., Zhejiang Erjian Construction Group Co., Ltd.

The main drafters of this document are: Xiao Zhongming, Yang Zhan, Jin Hao, Xie Zhengfen, Luo Huasong, Wang Jinsong, Zhang Xinsheng, Zhang Yulu, Tang Qiuqin, Shao Jिंगgan, Du Mengyun, Jia Yuan, Mo Weiqiang, Ren Chaojun, Lü Qi, He Zujun, Wu Jinguo, Li Yanqing, Li Feng, Mingxin, Cao Shengmin, Zhao Jun, Li Shuai, Wang Xinrong, Xu Quanhui, Fan Mengmeng, Yang Yonghong, Liu Deping, Chen Li, Ning Xiangbo, Wang Benliu, Wang Yongzhou, Zhang Weijun, Sun Bing, Zheng Yaohua, Wu Chengzhang, Dai Gang, Wu Hao, Wang Shan, Su Jing, Zhang Xianling, Wu Xiangling, Yang Hui, Liu Wen, Zhang Kun, Li Yang, Gu Rui, Zhu Ying, Xiang Junmei, Bai Yanxia, Wang Jiaming, Qian Chongcang, Kou Xiaojian, Huang Youjun, Jiang Yu, Li Hongsheng, Song Yaya, Zhou Jianhua, Wang Haobin, Zhang Xiao, Zhou Heng, Yu Qingru, Han Xiuqing, Dong Hao, Xia Dahui, Ma Yonglong, Guo Junping and Li Yameng.

Test method for chemical shrinkage of cement paste

1 Scope

This document gives the principles of the test method for chemical shrinkage of cement paste, describes the test method, specifies the test room and equipment, materials and Repeatability and reproducibility of materials and methods.

This document applies to chemical shrinkage testing of Portland cement pastes.

Note. The test methods for chemical shrinkage of cement paste are divided into absolute volume method and apparent volume method.

2 Normative references

GB/T 6682

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Chemical shrinkage of cement paste

Volume shrinkage of cement paste due to the hydration reaction between cement particles and mixing water.

4 Principles of the Method

During the process of cement and water reacting to form hydration products, the solid phase volume in the cement-water system gradually increases, but the overall volume of the cement-water system The chemical shrinkage of cement paste can be obtained by measuring the change of water level in the pipette.

5.1 Laboratory

The temperature in the laboratory should be maintained at $20^{\circ}\text{C}\pm 2^{\circ}\text{C}$ and the relative humidity should not be lower than 50%.

5.2.1 Balance

5.2.1.1 The maximum weighing range shall be no less than 500 g, and the graduation value shall be no greater than 0.01 g;

5.2.1.2 The maximum weighing range shall not be less than 1 000 g, and the graduation value shall not be greater than 0.1 g.