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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

GB/T 8489-2006

Replacing GB/T 8489-1987

**Test method for compressive strength of fine ceramics
(advanced ceramics, advanced technical ceramics)**

精细陶瓷压缩强度试验方法

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Foreword

This standard adopts the Japanese standard JIS R 1608-2003 "Testing methods for compressive strength of fine ceramics" with modifications.

This standard is a revision of GB/T 8489-1987 "Testing method for compressive (crushing) strength of high performance ceramics".

The main differences between this standard and JIS R 1608-2003 are as follows:

- CHANGE "high-performance ceramics" to "fine ceramics"; ADD the "functional ceramics" to the scope of application (see Chapter 1).
- DELETE the "loading plate" from the Terms (see Chapter 3).
- ADD the specifications regarding the testing machine load range at the time of specimen fracture (see 4.1).
- ADD the specifications for the dimensions, roughness, hardness, parallelism of the upper and lower platens (see 4.2).
- ADD the specifications regarding the dimensions, roughness, hardness, parallelism, usage of contact blocks (see 4.3).
- ADD the specifications regarding the thickness and material of spacers (see 4.4).
- ADD the specifications for the accuracy of measuring instruments (see 4.5).
- ADD the sampling specifications, changing the number of specimens per set to 10 (see 5.1).
- ADD the instructions for the preparation of piezoelectric ceramic specimens (see 5.2).
- ADD a schematic diagram of square prismatic specimens (see Figure 1).
- ADD a schematic diagram of a lower platen with an arc-shaped surface (see Figure 2).
- CHANGE the crosshead displacement rate to 0.2 mm/min (see 6.3).
- ADD a test method for piezoelectric ceramics; DELETE the provision regarding the reuse of loading plates (see 6.4).
- ADD the formula for calculating the average value (see 7.2).
- DELETE the original test report content and REWRITE it (see Chapter 8).
- DELETE the original appendix; ADD the specifications for the rounding of numerical values (see Appendix A).

This standard replaces GB/T 8489-1987. The main changes compared to the previous version are as follows: