

ICS 71.120.99; 25.220.50
CCS G 94



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

GB/T 7994.2-2014

Test methods of glass-lined equipment - Part 2: Gas leak test

搪玻璃设备试验方法 第2部分：气密性试验

Issued on: December 5, 2014

Implemented on: July 1, 2015

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Test requirements

Foreword

GB/T 7994-2014 "Test method for glass-lined equipment" is divided into two parts.

--- Part 1. pressure test;

--- Part 2. tightness test. This section GB/T 27994 Part of. This section drafted in accordance with GB/T 1.1-2009 given rules. This Part replaces GB/T 7995-2005 "Test method for glass-lined equipment tightness", compared with the GB/T 7995-2005, the main technical Surgery changes are as follows:

--- According to the design pressure range of glass-lined pressure equipment selection test gauge accuracy class;

--- Cancel the test pressure requirements;

--- Based TSGR0004 "Stationary Pressure Vessel Safety Technology Supervision" on the dwell time and leak testing methods Amendments. This part is proposed by the China Petroleum and Chemical Industry Association. The glass-lined equipment in part by the National Standardization Technical Committee (SAC/TC72) centralized. This section is drafted. Ningbo Mingxin Chemical Machinery Co., Ltd., Liyang City, Jiangsu Province Yunlong Equipment Manufacturing Co., Ltd., Guangzhou special Species Pressure Equipment Inspection Institute, the town of Wenzhou Tian Machinery Co., Tianhua Chemical Machinery and Automation Research Institute Limited. The main drafters of this section. Yeh, Making Textual Criticism, Limao Dong, entry by light, Xia Tianbao, Wu Wendong, Tu Xin, Zhang Nan. This part of the standard replaces the previous editions are.

--- GB/T 7995-1987, GB/T 7995-2005. Test methods for glass-lined equipment Part 2. tightness test

1 Scope

Part 2 of China's national test methods for glass-lined equipment, covering the gas leak test. Where the hydraulic test proves the vessel's strength, this one proves its tightness - and for a glass-lined reactor those are different questions with different answers. The lining is a continuous impervious layer over the steel, and its integrity is what keeps the process

fluid off the metal; a defect too small to affect the vessel's strength at all is enough to let acid reach the steel and undercut the lining from beneath, which destroys the vessel from the inside. Gas finds such defects where liquid does not, because a gas passes through a flaw that surface tension would keep a liquid out of. The test is therefore a sensitive one aimed at the joints, nozzles and gasketed connections where leaks arise. This part specifies the requirements, methods and the combined water and gas tightness test for glass-lined pressure equipment.

GB/T 7994 provisions of this part of the test method requires a joint glass-lined pressure tightness test equipment, methods and water/gas. This section applies to glass-lined pressure leak test equipment.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 7991.6 enamel coating Test methods - Part 6. High voltage test

3 Test requirements

3.1 air tightness test of time Tightness test should be carried out after the hydrostatic test qualified.

3.2 test pressure gauge

3.2.1 tightness test and apply the same two gauges within the validity period of the test qualified. Pressure gauge should be installed on top of glass-lined equipment The same position unit, the installation position to facilitate the testing personnel observed.

3.2.2 For the design pressure less than 1.6MPa glass-lined equipment, pressure gauge accuracy rating of not less than 2.5; the design pressure Than or equal to 1.6MPa glass-lined equipment, pressure gauge accuracy rating of not less than 1.6.

3.2.3 gauge scale limit at about twice the test pressure is appropriate, and should not be less than

1.5 times the test pressure of not more than 3 times.

3.3 tightness test medium The test gas should be dry and clean air, nitrogen or other inert gas, test gas shall not be less than 5 °C. Test Method 4

4.1 air tightness test, should generally be safety accessories and mixers and other accessories fully assembled. Site assembly attached to safety before use for administration Stirrer and other parts and accessories, air tightness test report shall be glass-lined equipment indicated in the quality certificate. assembled on site safety accessories and

stirred After the required accessories such as air tightness test again.

4.2 tightness test before the glass-lined equipment to deal with the quality of assembly, test preparation to conduct a comprehensive inspection.

4.3 Test pressure should rise slowly, after the test pressure reaches a predetermined dwell time enough for all welded joints and joints coated fertilizer Soapy water or other liquid leak leak check, visually observed for leaks.

4.4 during the tightness test can not be under pressure or external force is applied to the fastening bolt pressure components. Shall not be used to maintain continuous pressure test