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

GB/T 7994.1-2014

**Test methods of glass-lined equipment - Part 1: Hydraulic
pressure test**

搪玻璃设备试验方法 第1部分：水压试验

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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 17994-2014 part of. This section drafted in accordance with GB/T 1.1-2009 given rules. This Part replaces GB/T 7994-2005 "Test method for glass-lined pressure equipment", compared with the GB/T 7994-2005, Technical Changes are as follows:

--- Glass-lined pressure equipment in accordance with the scope of the design pressure, select test gauge accuracy class;

--- Cancel the provisions of the text value of the test pressure;

--- According TSGR0004 "Safety Technology Supervision of Stationary Pressure Vessels," the provisions of the testing process step-up, step down into the Line revision;

--- Increase the water pressure test may be a combination of gas and liquid pressure test method instead of the provisions, as Appendix A. 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. Liyang City, Jiangsu Province Yunlong Equipment Manufacturing Co., Ltd., Ningbo Mingxin Chemical Machinery Co., Ltd., Changshu City Huamao Chemical Equipment Co., Ltd., Zhejiang Nyaya Health and Technology Co., Ltd., Tianhua Chemical Machinery and Automation Research Institute Limited. The main drafters of this section. Ye Qing, Zhang, Ma Zhaotai, Huangdao De, Qin Liming, Xia Tianbao. This part of the standard replaces the previous editions are.

--- GB/T 7994-1987, GB/T 7994-2005. Test methods for glass-lined equipment Part 1. pressure test

1 Scope

Part 1 of China's national test methods for glass-lined equipment, covering the hydraulic pressure test. Glass-lined vessels are the reactors of the fine chemical and pharmaceutical

industries, used wherever the process is too corrosive for stainless steel - which is most acid chemistry. The pressure test on such a vessel is a more delicate matter than on a bare steel one, because the lining and the steel respond differently to the strain the test imposes: the steel yields slightly and the glass does not, so a test taken too far damages exactly the surface the vessel exists to provide, and the damage may not be visible. The test is therefore about proving the pressure boundary without harming the lining, which is what the prescribed conditions ensure. This part specifies the requirements, methods and the combined gas and liquid pressure test method for glass-lined pressure equipment, and applies to the hydraulic testing of such equipment.

GB/T 7994 This section specifies the requirements for glass-lined pressure hydraulic test equipment, methods and combination gas and liquid pressure test method. This section applies to glass-lined pressure hydraulic 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

JB/T 4730.2 Non-destructive testing of pressure equipments - Part 2. ray detector

JB/T 4730.3 Non-destructive testing of pressure equipments - Part 3. Ultrasonic testing

3 Test requirements

3.1 Pressure safety test requirements Hydrostatic test site should be reliable security facilities, and shall be subject to technical unit responsible for the management and security inspection approval. Water pressure During the test, the test can not be carried out independent of work, unrelated persons shall remain at the test site.

3.2 test pressure gauge

3.2.1 Application of two identical hydrostatic test and certified by the gauge within the validity period. Pressure gauge should be installed on top of the glass-lined equipment In the same location, the installation position to facilitate the testing personnel observed.

3.2.2 design pressure less than 1.6MPa glass-lined equipment gauge accuracy rating of not less than 2.5, greater than the design pressure Or equal to 1.6MPa glass-lined equipment gauge accuracy rating of not less than 1.6. Dial diameter not less than 100mm.

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 pressure test and an exhaust vent setting requirements The test glass-lined equipment should be located at the top of the vent, glass-lined equipment should be filling the air inside the drain.

3.4 Test media and temperature requirements With clean water as a test liquid, test temperature (glass-lined equipment wall metal temperature) of not less than 5 °C.

3.5 Test equipment requirements appearance During the test, the appearance of the surface of glass-lined equipment should be kept dry. Test Method 4

4.1 hydrostatic test response before the assembly quality glass-lined equipment, test preparation to conduct a comprehensive inspection.