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

**GB/T 30790.6-2014**

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**Paints and varnishes -- Corrosion protection of steel structures  
by protective paint systems -- Part 6: Laboratory performance  
test methods**

色漆和清漆 防护涂料体系对钢结构的防腐蚀保护 第6部分：实验室性能测试方法  
(English Translation)

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## Foreword

GB/T 30790 "Paints and varnishes protective coating systems for corrosion protection of steel structures" is divided into eight sections.

--- Part 1. General;

--- Part 2. Classification of environments;

--- Part 3. Design Basis;

--- Part 4. Types of surface and surface treatment;

--- Part 5. Protective paint systems;

--- Part 6. Laboratory performance test methods;

--- Part 7. Coating of implementation and management;

--- Part 8. Create and maintain technical specifications development.

This section GB/T Part of 630,790.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses redrafted Law Amendment uses ISO 12944-6:1998 "Paints and varnishes protective coating systems for corrosion protection of steel structures Corrosion protection - Part 6. Laboratory performance test methods. " this part of ISO 12944-6:1998 compared to

the existence of technical differences in terms of these differences has been involved through its outer margins Vertical single-line position (l) was marked Appendix C gives the list of the corresponding technical differences and their causes.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee and the pigment coating (SAC/TC5) centralized.

This section drafted by. CNOOC Changzhou coating Chemical Research Institute, Hempel (China) Co., Ltd. New Materials Co., Ye Jian, Li Nippon Paint (China) Co., Ltd., China Paint (Shenzhen) Co., Ltd., Anqing Linghu Paint Co., Ltd., Zhejiang Flying whale Paint Co., Ltd., Shenzhen Shenzhen Municipal Environmental Protection Kwong Tin Coating Co., Ltd., Akzo Nobel Protective Coatings (Suzhou) Co., Ltd., Shenzhen Hirota Decoration Group Company Limited SECRETARY COSCO Kansai Paint Chemical Co., Ltd., Shandong Pentium Paint Co., Ltd., Beijing Air Materiel Biam new materials technology Engineering Co., Ltd.

Zhejiang Yutong new materials Co., Ltd., Guangzhou Standard Geda laboratory equipment supplies Limited.

## 1 Scope

GB/T 30790 provisions of this part of the assessment of corrosion protection of steel with a laboratory test methods and test conditions of the coating system.

The test results can be used to select a suitable coating system reference, and not as accurate information to determine durability.

This section covers for uncoated steel, hot-dip galvanized steel and protective coating systems thermal spray zinc steel surface.

This section does not apply protective coating systems plated steel or coated steel.

Some tests in this section do not apply to many aqueous coating systems (see 4.2). However, some water-based coating system can be used in this standard the procedures for testing and evaluation of the test results should be considered.

Consider GB/T 30790.2 defined by the type of environment.

## 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 1771 Paints and varnishes - Determination of resistance to neutral salt spray (GB/T

1771-2007, ISO 7253:1996, IDT) GB/T 3186 Paints, varnishes and raw materials for paints and varnishes - Sampling (GB/T 3186-2006, ISO 15528:2000, IDT) GB/T 5210 Paints and varnishes - Pull - off adhesion test (GB/T 5210-2006, ISO 4624:2002, IDT) GB/T 8923.1 steel substrates before application of paints and Visual assessment of surface cleanliness - Part 1. uncoated steel Surface and fully remove the original steel surface coating after Rust grades and grade (GB/T 8923.1-2011, ISO 8501-1.

2007, IDT)

GB/T 9286 Paints and varnishes cut test (GB/T 9286-1998, eqv ISO 2409:1992) GB/T 13288.1 steel surface roughness characteristics - Part 1 before application of paints and spray steel surface treatment after cleaning. for Evaluation after injection technology requirements and definitions ISO cleaned steel surface roughness of the surface roughness comparison specimens (GB/T 13288.1-2008, ISO 8503-1. 1988, IDT) GB/T 13288.2 steel surface blast cleaned steel substrates before application of paints roughness characteristics - Part 2. Abrasive After blast cleaning of steel surface roughness measurement method comparison specimens grade method (GB/T 13288.2-2011, ISO 8503-2. 1988, IDT) GB/T 13452.2 Paints and varnishes - Determination of film thickness (GB/T 13452.2-2008, ISO 2808:2007, IDT) GB/T 13893 Paints and varnishes - Determination of resistance to humidity (continuous condensation) (GB/T 13893-2008, ISO 6270-1:1998, IDT) GB/T 14293 artificial atmosphere corrosion test General requirements (GB/T 14293-1998, eqv ISO 7384. 1986) GB/T 20777 Paints and varnishes examination and preparation of samples (GB/T 20777-2006, ISO 1513:1992, IDT) GB/T 30790.1 Paints and varnishes protective coating systems for corrosion protection of steel structures - Part 1. General (GB/T 30790.1-2014, ISO 12944-1:1998, MOD) GB/T 30790.2 Paints and varnishes protective coating systems for corrosion protection of steel structures - Part 2. Classification of environments