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

中华人民共和国机械行业标准

JB/T 5000.12-2007

Replace JB/T 5000.12-1998

**Heavy mechanical general techniques and
standards—Part 12: Paint**

重型机械通用技术条件 第 12 部分：涂装

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Foreword

"Heavy Mechanical General Techniques and Standards" JB/T 5000 comprises fifteen parts:

- Part 1: Check of Product;
- Part 2: Oxygen cutting workpiece;
- Part 3: Welding;
- Part 4: Iron casting;
- Part 5: Non-ferrous casting;
- Part 6: Steel castings;
- Part 7: Repair welding for steel castings;
- Part 8: Forging;
- Part 9: Cutting;
- Part 10: Assembly;
- Part 11: Attached piping;
- Part 12: Paint;
- Part 13: Packing;
- Part 14: Non-destructive Inspection of Cast Steel;
- Part 15: Non-destructive Inspection of Forged Steel.

This Part is Part 12 of JB/T 5000.

This part shall replace JB/T 5000.12-1998 "The Heavy Mechanical General Techniques and Standards--Coating".

There have been some significant changes in this part over JB/T 5000.12-1998 as follows:

—The acid cleaning code number "Be" in the primary Table 1 is deleted, and the contents related to acid cleaning in the petroleum professional standard SY/T 0407 is quoted (see Annex A).

—Primary Table 2 is deleted. Mechanical product environmental corrosion classification, coating durability classification, coating thickness and expected anti-corrosion age limit comparison (meeting relevant requirements of ISO 12944-2) are added, see 4.2.1 and Annex B.

—Responsibilities and labors of product design engineers and product anti-corrosion engineers in product anti-corrosion are clearly defined; see 4.2.2 and 4.2.3.

—Painting requirements for the internal of steel vessels, castings and forgings of industrial cars, as well as joint surface of high-strength bolt connecting pieces are added, see 4.3.5, 4.3.6 and 4.3.7.

—Responsibilities of paint quality inspection department and relevant personnel are emphasized; see 5.1, 5.2 and 5.3.

—Evaluating the resistance of coating separating from the substrate with cross cut test is added (meeting GB/T 9286). "Coating adhesive force" is changed to "resistance of coating separating from the substrate" to be consistent with GB/T 9286. See Chapter 6 and Annex C

—Annex A in the former standard is deleted.

Annex A and Annex C of this Part is normative, and Annex B is informative.

This part was proposed by China Machinery Industry Federation.

This part is under the jurisdiction of National Technical Committee on Metallurgy Equipment of Standardization Administration of China.

Drafting organization of this part: DHI.DCW GROUP CO., LTD.

Chief drafting staffs of this part: Guan Ming and Zhang Lianbin.

This part replaces the following editions in turn:

——GB/T 5000.12—1998.

Heavy Mechanical General Techniques and Standards

—Part 12: Paint

1 Scope

This Part of JB/T 5000 specifies the paint techniques and inspection requirements for heavy mechanical products and their spare parts.

This Part is mainly applicable to the surface paint of iron and steel products. Without special requirements in the contract documents, the surface paint of the products shall be in accordance with the requirements of this Part.

2 Normative References

The following standards contain provisions which, through reference in this part of JB /T 5000, constitute provisions of this part. For dated references, all subsequent modification or revision (excluding correction contents) are not applicable to this Part. However, all concerned Parties are encouraged to study if the latest editions of these documents can be applied. For undated references, the latest editions of the normative documents are applicable to this part.

- | | |
|-------------|--|
| GB/T 2893 | Safety colors (GB/T 2893—2001, neq ISO 3864: 1984) |
| GB/T 5206.1 | Paints and varnishes; Vocabulary; Part 1: General terms (GB/T 5206.1—1985, eqv 4618-1: 1978) |
| GB/T 5206.4 | Paints and varnishes; Vocabulary; Part 4: Terminology relating to physical and chemical properties of coatings and films GB/T 5206.4—1989, neq ISO 4618-1: 1984) |
| GB/T 5206.5 | Paints and varnishes; Vocabulary; Part 5: Terminology relating to defects of coatings and films (GB/T 5206.5—1991, neq ISO 4618-2: 1984) |
| GB/T 6514 | Safety code for painting - Safety, ventilation and air clean-up for painting process (GB 6514—1995, neq NFPA 33: 1989) |
| GB/T 7231 | Basic identification colors and code indications and safety sign for industrial pipelines |
| GB/T 7692 | Safety code for painting - Safety, ventilation and air clean-up for pretreatment process of painting |
| GB/T 8264 | Glossary of painting terms |
| GB/T 8923 | Rust Grades and Preparation Grades of Steel Surfaces before Application of Paints and Related Products (GB/T 8923—1988, eqv ISO 8501-1: 1988) |
| GB/T 9286 | Paints and varnishes - cross cut test for films (GB/T 986—1998, eqv ISO 2481: 1992) |
| SY/T 0407 | Specification of steel surface preparation before application of paint |
| GSB 05-1426 | Color standard cards for films |
| ISO 12944-2 | Paints and varnishes - corrosion protection of steel structures by protective paint systems Part 2: Environment classification |

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