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

GB/T 26105-2010

**Test of rust preventive oil for rust preventing ability
-Electrochemical measurement with wire beam electrode**

防锈油防锈性能试验 多电极电化学法

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Foreword

Appendix A of this standard is a normative appendix. The standard proposed by China Machinery Industry Federation. This standard layer Standardization Technical Committee (SAC/TC57) administered by the National Metal and non-metal cover. This standard was drafted. Hunan University, Wuhan Institute of Material Protection, Quality and Technical Supervision in Hunan Province, Luoyang Bearing Research Institute, Changsha Almon Chemical Co., Ltd. The main drafters of this standard. Jinjiu Cheng, Huang Guifang, Di Chen Ping, Wang Road Town, Jin Hao, JIA Jian new, into Yimin, Wang Zijun, Peng Peiying, Wucui Lan, Zhu Xiaoli.

Due to factors affecting the performance of many anti-rust oil rust, a single multi-electrode electrochemical test rapid test does not represent an absolute anti-rust oil Rust resistance, so the test results are not obtained in this standard as the test sample directly guide the use of anti-rust performance in all environments. in spite of Thus, the method specified in this standard is still available as a method of comparing the merits of the test sample rust resistance. Anti-rust oil rust performance test Multi-electrode electrochemical

1 Scope

GB/T 26105-2010 is the Chinese national standard on test of rust preventive oil for rust preventing ability -electrochemical measurement with wire beam electrode, in the field of manufacturing engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 January 2011 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 October 2011. Classification: ICS 25.220.70, CCS A29. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken

from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the evaluation of anti-rust oil rust resistance test multi-electrode electrochemical test methods, equipment and procedures. This standard applies to the iron-based material comparative test of anti-rust oil rust resistance.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 678 chemical reagent alcohol (ethanol)

GB/T 1266 chemical reagents sodium chloride GB/T 11372 rust term

GB/T 15894 chemical reagents petroleum ether

3 Terms and Definitions

GB/T 11372 and established the following terms and definitions apply to this standard.

3.1 Rust performance rustpreventingability Rust oil effective protection under the metal film or the ability to prevent corrosion of the metal.

3.2 Multi-electrode electrochemical electrochemicalmeasurementwithwirebeamelectrode By measuring a plurality of electrodes in oil or oil-coated electrode electrochemical parameters in corrosive media, and the use of statistical parameters to evaluate the anti-rust oil Rust resistance method. The former is called a multi-electrode electrochemical direct measurement method, which is called a multi-electrode electrochemical drain method.

Principle

4 Rust coating film at room temperature corrosion of metals is a electrochemical process. The resistance encountered during mainly from polarization resistance, which Or second film is corrosive resistance. The resistance encountered during the greater the corrosion rate of the metal is smaller. In the film and the polarization resistance is greater than Corrosive media resistance condition, the greater the measured resistance, anti-rust anti-rust oil, the better the performance. Electrochemical unevenness anti-rust oil, each Electrode resistance generally different. Low resistance region is the weak link in protective anti-rust oil, the first cause metal corrosion under the membrane, the direct control of the film Rust performance advantages and disadvantages. Multi-electrode electrochemical method to evaluate the performance of rust rust film by statistical distribution of low-resistance electrode resistance area.

5 Materials and Reagents

5.1 test probe electrode material $\Phi = 0.9\text{mm}$ diameter wire (ASTMA853).

5.2 the auxiliary electrode material Diameter $\phi = 18\text{mm}$ 45

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