



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

GB/T 2361-1992

Rust preventing oils and greases-Test method of wet heat

防锈油脂湿热试验法

(English Translation)

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1 Subject and scope

This standard specifies a method for evaluating the rust-preventing performance of rust-preventing oils and greases on metals using a wet heat test chamber.

This standard applies to rust-preventing oils and greases.

2 Normative references

SH 0004 Solvent oils for rubber industry ZB E41 009 Rust degree test method for rust-preventing oil and grease test piece ZB E41 010 Preparation method for rust-preventing oil and grease test piece

3 Method summary

The coated test piece is placed in a wet heat test chamber at a temperature of 49 ± 1 °C and a relative humidity of 95% or higher. After the test time required according to the product specifications, the rust degree of the test piece is evaluated.

4.1 Instruments

4.1.1

Wet heat test chamber. It consists of a test piece rotation frame, air supply device, heating and regulating device, air filter, flow meter, etc. It must be made of corrosion-resistant materials. The chamber shall meet the following technical requirements.

- a. Test piece frame rotation speed..
- b. Temperature at the test piece suspension point. 49 ± 1 °C.

- c. Relative humidity inside the chamber. more than 95%.
- d. Airflow rate. Approximately 3 times the chamber's internal volume per hour.
- e. Water layer at the bottom of the chamber. 200 mm deep distilled water with a pH value of 5.5 ~ 7.5.
- f. Spacing between the tray slots on the test piece rotating frame shall be no less than 35 mm.
- g. Water droplets inside the chamber must not fall onto the test piece. Grease dripping from the test piece must also not fall onto the water surface at the bottom of the chamber; a receiving tray shall be provided.
- h. The wet heat chamber shall be placed in a clean location, free from corrosive gases such as sulfur dioxide, hydrogen sulfide, chlorine, ammonia, with the ambient temperature maintained between 15 ~ 35 °C.

4.1.2

Hot and cold air blower.

4.2.1 Test pieces. Steel sheets conforming to Method A of ZB E41 010 (other

specifications and materials may also be selected according to product standard requirements).

4.2.2 Hook. As shown in the diagram below, it is made of stainless steel wire or nickel-

copper alloy wire with a diameter of 1 mm and a total length of approximately 90 ~ 100 mm.

Hook schematic diagram

4.2.3 Stainless steel sheet. Made of 1Cr18Ni9Ti material, according to the same specifications as the steel sheet.

4.2.4 Rubber industry solvent oil. Meet the requirements of SH 0004.

5 Preparation

5.1

Test piece preparation. Grind and clean three test pieces according to Method A in