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

GB/T 6540-2025

Replacing GB/T 6540-1986

Determination for colour of petroleum products

石油产品颜色的测定

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document replaces GB/T 6540-1986 "Determination of Color of Petroleum Products". Compared with GB/T 6540-1986, except for structural adjustments and...

Aside from editorial changes, the main technical changes are as follows.

- a) Other compliant diluents were added (see 5.1);
- b) A description of qualitative filter paper has been added (see 5.2);
- c) A description of distilled water has been added (see 5.3);
- d) The specifications of the sample container in the instrument were changed (see 6.2, 2.1.2 of the 1986 edition);
- e) The arbitration test container was removed (see 2.1.2 of the 1986 edition);
- f) An ultrasonic bath was added (see 6.4);
- g) An oven was added (see 6.5);
- h) Sampling requirements have been added (see Chapter 7);
- i) Added instructions on the treatment of turbid samples (see 8.1);
- j) A description of the measurement results has been added (see 9.2);
- k) The precision was changed (see Chapter 11, Chapter 6 of the 1986 edition);
- l) The reproducibility requirements in precision have been changed (see 11.3, 6.2 of the 1986 edition);
- m) Added requirements for a three-field colorimeter (see A.1.3);

n) The characteristics of the daylight filter were changed (see A.2.1.4, A.2.2 in the 1986 edition).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Petroleum Products and Lubricants (SAC/TC280).

This document was drafted by: Sinopec Research Institute of Petroleum Processing Co., Ltd., Sinopec Lubricating Oil Co., Ltd., and China National Petroleum Corporation (CNPC).

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This document was first published in 1986, and this is its first revision.

Determination of the color of petroleum products Warning---Personnel using this document should have practical experience in formal laboratory work. The use of this document may involve certain hazardous activities.

This document does not address all potential safety issues related to the materials, equipment, and operations used. Users are responsible for taking appropriate safety and health precautions.

Implement the measures and ensure they comply with the conditions stipulated by relevant national laws and regulations.

1 Scope

This document describes a method for determining the color of petroleum products using visual inspection.

This document applies to the determination of the color of various petroleum products such as lubricating oil, kerosene, diesel, and petroleum wax.

2 Normative references

GB/T 3555

GB/T 4756

GB/T 6682-2008

GB/T 6986

GB/T 27867

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Method Overview

The sample is injected into the sample container and compared with a standard glass colorimetric plate with a color number range of 0.5 to 8.0 under a standard light source.

The color numbers are compared, and the one that matches is taken as the color number of the sample. If no exact match can be found for the sample color, but it falls between two standard colors...

If the color is between two colors, report the darker shade of the two colors.

5 Reagents or materials

5.1 Diluent. Kerosene or other diluent (e.g., white oil or No. 100 neutral solvent oil) is used to dilute dark-colored samples during testing. The color should be less than...

The 21 Cypher color measured by GB/T 3555 is lighter than that measured by GB/T 3555.

5.2 Qualitative filter paper. medium speed, diameter 9cm~12.5cm.

5.3 Distilled water. Meets the requirements of Grade III water or above in GB/T 6682-2008.