



JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

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**JIS K 2270** : 2000

(PAJ)

**Crude petroleum and petroleum  
products—  
Determination of carbon residue**

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**ICS** 75.040; 75.080

**Descriptors** : petroleum, petroleum products, carbon residue determination, evaporation  
residue determination, carbon

**Reference number** : JIS K 2270 : 2000 (E)

## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by the Petroleum association of Japan (PAJ) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law. Consequently **JIS K 2270 : 1998** is replaced with this Standard.

In this revision, the corresponding International Standards, **ISO 6615 : 1993** and **ISO 10370 : 1993** have been used as the base.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

Date of Establishment: 1954-07-20

Date of Revision: 2000-11-20

Date of Public Notice in Official Gazette: 2000-11-20

Investigated by: Japanese Industrial Standards Committee

Divisional Council on Chemical

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JIS K 2270:2000, First English edition published in 2001-08

Translated and published by: Japanese Standards Association  
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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In the event of any doubts arising as to the contents,  
the original JIS is to be the final authority.

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Printed in Japan

## Crude petroleum and petroleum products— Determination of carbon residue

**Introduction** This Japanese Industrial Standard has been prepared based on the second edition of **ISO 6615 Petroleum products—Determination of carbon residue—Conradson method** published in 1993; the first edition of **ISO 10370 Petroleum products—Determination of carbon residue—Micro method** published in 1993, additionally included the items of provision not specified in the corresponding International Standards as the Japanese Industrial Standard as well as some modification in the technical contents.

The side-lined or dotted-underlined parts in this Standard are the modified items of the original International Standards or the items not contained in the original International Standards. The table of modification is shown in Annex 2 attached with the explanation.

**1 Scope** This Standard specifies the method to determine the carbon residue in crude petroleum and petroleum products.

Remarks 1 Dangerous reagents, operations and apparatus are sometimes used in these methods. However, this Standard does not cover all the safe methods for use of such things. Therefore, prior to the test, the user of these testing methods shall determine appropriately the prohibitions to secure safety and health.

- 2 When the carbon residue in 10 % residual oil is determined for light oil, heavy oil A and the similar oils to those, the preparation method of 10 % residual oil is shown in Annex A.

The preparation of 10 % residual oil by micro method may be carried out under the condition of class 4 specified in the ordinary-pressure method of **JIS K 2254**.

- 3 The carbon residue indicates the tendency of produced carbonide amount in combustion chambers of diesel engine. However, for the products with alkyl nitrate (improving agent of cetane number) added, the value of carbon residue increases independently of the produced carbide amount in combustion chambers. Therefore, for the relation of the produced carbide amount in combustion chambers to carbon residue, it is required to use the value excluding the increase of carbon residue by alkyl nitrate.

The test method to determine the amount of alkyl nitrate is shown in Annex 1.

- 4 The International Standards corresponding to this Standard are shown in Table 1.

The symbols indicating the degree of correspondence shall be IDT (identical), MOD (modified) and NEQ (not equivalent) based on **ISO/IEC Guide 21**.