



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS K 2270-1 : 2009

(PAJ)

**Crude petroleum and petroleum
products—Determination of carbon
residue—Part 1: Conradson method**

ICS 75.040; 75.080

Reference number : JIS K 2270-1 : 2009 (E)

Date of Establishment: 2009-03-20

Date of Public Notice in Official Gazette: 2009-03-23

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Chemical Products

JIS K 2270-1 : 2009, First English edition published in 2010-02

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

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

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by 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 Consequently, **JIS K 2270:2000** has been withdrawn and partly replaced with this Standard.

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JIS K 2270 series consists of the following 2 parts under the general title “*Crude petroleum and petroleum products—Determination of carbon residue*”:

Part 1: Conradson method

Part 2: Micro method

Crude petroleum and petroleum products—Determination of carbon residue—Part 1: Conradson method

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 6615** published in 1993 with some modifications of technical contents made for the purpose of reflecting the actual state in Japanese market.

The portions with continuous sidelines and dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with explanations is given in Annex JA.

Warning The use of this Standard may involve hazardous materials, operations and equipment. This Standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This Standard specifies a method for determining the amount of carbon residue, in the range of 0.01 % to 30.0 % mass fraction, left after evaporation and pyrolysis of crude petroleum and petroleum products, according to Conradson method. This Standard is also applicable to 10 % residual oil of light oil, heavy oil A and petroleum products similar to these.

NOTE 1 The carbon residue of oils may give an indication of the propensity of the oil to lay down deposits in combustion chambers in diesel engines. The presence of alkyl nitrates (cetane improver) in petroleum products, though it does not affect the amount of carbide produced in combustion chamber, will give carbon residue results that are higher than the corresponding values on the fuel without additives. Therefore, in the case of such products, for the relation of the produced carbide amount in combustion chambers and carbon residue, the value of carbon residue shall exclude the increase attributed to the addition of alkyl nitrate. The method of determining alkyl nitrates is specified in ISO 13759.

NOTE 2 Carbon residue includes ash-forming components and non-volatile additives.

NOTE 3 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows:

ISO 6615 : 1993 *Petroleum products—Determination of carbon residue—Conradson method* (MOD)

The symbols which denote the degree of correspondence in the contents between **JIS** and the corresponding International Standard are IDT (identical), MOD (modified) and NEQ (not equivalent) according to **ISO/IEC Guide 21**.