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**Rubber — Identification of polymers  
(single polymers and blends) —  
Pyrolytic gas chromatographic  
method**

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## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, 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 Japan Rubber Manufacturers Association (JRMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS K 6231:1998** is replaced with this Standard.

This Standard has been made based on **ISO 7270-1:2003 Rubber — Analysis by pyrolytic gas-chromatographic methods — Part 1: Identification of polymers (single polymers and polymer blends)** for the purpose of making it easier to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of an International Standard which is based on Japanese Industrial Standard. 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 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.

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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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# Rubber — Identification of polymers (single polymers and blends) — Pyrolytic gas chromatographic method

**Introduction** This Japanese Industrial Standard has been prepared based on the first edition of **ISO 7270-1 Rubber — Analysis by pyrolytic gas-chromatographic methods — Part 1: Identification of polymers (single polymers and polymer blends)** published in 2003 without modifying the technical contents.

**WARNING** Persons using this Standard should be familiar with normal laboratory practice. This Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

## 1 Scope

**1.1** This Standard specifies a method for the identification of polymers, or blends of polymers, in raw rubbers and in vulcanized or unvulcanized compounds from pyrograms (pyrolysis-gas chromatographic patterns) obtained under the same conditions. This allows qualitative identification of single rubbers or blends, with exceptions discussed below.

The method applies first and foremost to single polymers. When the pyrogram indicates a characteristic hydrocarbon, the method is also applicable to blends. For details, see clause 4. The method may be also applicable to other types of polymers, but this must be verified by the analyst in each particular case.

**1.2** The use of this Standard pre-supposes sufficient working knowledge of the principles and techniques of gas chromatography to enable the analyst to carry out the operations described and to interpret the results correctly.

**NOTE :** The International Standard corresponding to this Standard is as follows.

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

ISO 7270-1 : 2003 *Rubber — Analysis by pyrolytic gas-chromatographic methods — Part 1: Identification of polymers (single polymers and polymer blends)* (IDT)

**2 Normative references** The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication of the year of coming into effect or the year of publication is given to these referred standards, only the edition of the indicated year constitutes the provision of this Standard but the revision and amendment made thereafter do not apply.