
**Rubber — Identification of polymers
— Pyrolytic gas-chromatographic
method using mass-spectrometric
detection**

*Caoutchouc — Identification des polymères — Méthode par
pyrolyse et chromatographie en phase gazeuse avec détection par
spectrométrie de masse*



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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analyses*.

Rubber — Identification of polymers — Pyrolytic gas-chromatographic method using mass-spectrometric detection

1 Scope

This International Standard provides a qualitative method for the identification of rubbers by their pyrolysis products using tandem the gas-chromatography /mass spectrometry.

The method applies to rubbers in the raw state and to unvulcanized and vulcanized compounds. Compounds can be based on a single rubber or a blend of two or more rubbers. Where the level of a particular rubber in a blend is < 10 % detection and identification can be difficult.

A non-restrictive list of rubbers is given in [Clause 3](#).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1407, *Rubber — Determination of solvent extract*

ISO 1629, *Rubber and latices — Nomenclature*

3 List of rubbers

The following list is not restrictive.

Rubbers are presented according to ISO 1629.

3.1 Group M

3.1.1 Chloropolyethylene (CM)

3.1.2 Chlorosulfonylpolyethylene (CSM)

3.1.3 Ethylene-propylene copolymer (EPM) and Ethylene-propylene-diene terpolymer (EPDM)

The method cannot distinguish between them.

3.1.4 Fluorocarbon rubber having substituent fluoro, perfluoroalkyl, or perfluoroalkoxy groups on the polymer chain (FKM)

The method cannot distinguish between them.