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International

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Plastics/rubber — Determination of residual monomers and other organic components by capillary-column gas chromatography —

Part 2: Headspace method

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This second edition cancels and replaces the first edition (ISO 13741-2:1988), which has been technically revised.

The main changes are as follows:

— the relative corrective factors for internal standard method in quantitative method are now determined by standard addition method, rather than external standard in previous version;

— added details for the preparation of standard solutions, calibration solutions and sample solutions are described;

— added the specification for automated headspace sampler;

— add Clause 3 Terms and definitions.

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The requirements imposed today by authorities include the assessment of the content of residual monomers and organic volatiles, for health and environmental reasons sometimes down to minute traces.

This document presents a method for the determination by gas chromatography of residual monomers and other organic components in polymer dispersions and lattices. This document provides a method that is in line with present-day requirements for analytical methods and is intended for use instead of ISO 3899, where precise measurements of volatile-matter content are needed. This document also expands the scope to include other volatile organic components than residue monomers.

Since the chromatograms obtained normally contain a series of peaks, it is only possible to determine the content of those volatiles for which response factors have been determined. For the identification of unknown peaks, auxiliary methods like mass spectroscopy or the use of a second GC column with a different polarity are advisable.

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