



British Standard

Sampling and analysis of iron, steel and other ferrous metals

Part 3. Methods of analysis

Section 3.16 Determination of lead

Subsection 3.16.4 Steel: flame atomic absorption spectrometric method

[EU title : Chemical analysis of ferrous materials. Determination of lead in steels.

Flame atomic absorption spectrometric method]

Echantillonnage et analyse du fer, de l'acier et d'autres métaux ferreux

Partie 3. Méthodes d'analyse

Section 3.16 Dosage du plomb

Sous-section 3.16.4 Acier: méthode par spectrométrie d'absorption atomique

Probenahme und Analyse von Eisen, Stahl und anderen Eisenmetallen

Teil 3. Analysenverfahren

Abschnitt 3.16 Bleibestimmung

Unterabschnitt 3.16.4 Stahl: Flammenatomabsorptionsspektrophotometrie

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National foreword

This Subsection of BS 6200 has been prepared under the direction of the Iron and Steel Standards Committee.

It is identical with Euronorm 181-1985 'Chemical analysis of ferrous materials. Determination of lead in steel. Flame atomic absorption spectrometric method' published by the Commission of the European Communities.

Terminology and conventions. The text of the Euronorm has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

Wherever the word 'EURONORM' appears, referring to this standard, it should be read as 'British Standard'.

Cross-reference. The Technical Committee has reviewed the provisions of Euronorm 18, to which reference is made in clause 6, and has decided that they are acceptable for use in conjunction with this standard.

At present there is no corresponding British Standard for Euronorm 18. Appropriate procedures from Euronorm 18 will be incorporated in BS 6200 : Part 2 'Methods of sampling and sample preparation', which will be published in due course.

Additional information. The method given embodies an early practice of subtracting the absorbance of the zero calibration solution from the absorbances of the other calibration solutions to obtain the net absorbances which are used in the preparation of the graph. This is a potential source of error in methods where there is a significant amount of analyte in the base metal and the calibration graph is non-linear. Tests have shown, however, that if curvature is limited such that the slope of the calibration graph covering the top 20 % of the concentration range (expressed as a change in absorbance) is not less than 0.7 times the slope of the bottom 20 % concentration range determined in the same way, and the concentration of lead in the iron base metal is not greater than 0.001 % Pb as required in the method, the error will be less than 0.001 % Pb at the 0.5 % Pb level. Details of the procedures to be adopted in methods where these restrictions do not apply will be included in BS 6200 : Part 6, to be published in due course.

Compliance with a British Standard does not of itself confer immunity from legal obligations.