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# Coal and coke — Calculation of analyses to different bases

*Charbon et coke — Calculs pour les analyses par rapport à différentes bases*



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# Foreword

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The committee responsible for this document is ISO/TC 27, *Solid mineral fuels*, Subcommittee SC 5, *Methods of analysis*.

This third edition cancels and replaces the second edition (ISO 1170:2008), of which it constitutes a minor revision.



 

# Coal and coke — Calculation of analyses to different bases



## 1 Scope

This International Standard gives equations that allow analytical data relating to coal and coke to be expressed on the various different bases in common use. Consideration is given to corrections that can be applied to certain determined values for coal prior to their calculation to other bases.

## 2 Normatives 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 602, *Coal — Determination of mineral matter*

ISO 17247, *Coal — Ultimate analysis*

## 3 Principle

In order to convert an analytical result expressed on one basis to another basis, it is multiplied by a factor calculated from the appropriate formulae (see Table 1) after insertion of the requisite numerical values.

## 4 Symbols

The symbols employed in the subsequent clauses are as follows, with suffixes (separated by a dot) “ad” (air-dried), “ar” (as-received), “d” (dry), “daf” (dry, ash-free) or “dmmf” (dry, mineral-matter-free) where appropriate.

$w_A$ ash, expressed as percent mass fraction

$w_C$ carbon content, expressed as percent mass fraction

$w_{Cl}$ chlorine content, expressed as percent mass fraction

$w_{Cl.inorg}$ inorganic chlorine content, expressed as percent mass fraction

$w_{CO2}$ carbon dioxide content, expressed as percent mass fraction

$w_H$ hydrogen content, excluding hydrogen in the moisture, but including the hydrogen from water of hydration in minerals, expressed as percent mass fraction

$w_{H2O}$ moisture content, expressed as percent mass fraction

$w_h$ water of hydration in the mineral matter, expressed as percent mass fraction

$w_{MM}$ mineral matter content, expressed as percent mass fraction (see Annex A)

$w_N$ nitrogen content, expressed as percent mass fraction

$w_O$ oxygen content, excluding oxygen in the moisture but including the oxygen from water of hydration in minerals, expressed as percent mass fraction

$w_{S,o}$ organic sulfur content, expressed as percent mass fraction