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**Brown coals and lignites —  
Determination of acetone-soluble  
material (“resinous substance”) in the  
benzene-soluble extract**

*Charbons bruns et lignites — Détermination des matières solubles dans  
l'acétone de l'extrait au toluène soluble («substances résineuses»)*



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## Foreword

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ISO 1017 was prepared by Technical Committee ISO/TC 27, *Solid mineral fuels*, Subcommittee SC 5, *Methods of analysis*.

This third edition cancels and replaces the second edition (ISO 1017:1985), which has been technically revised.

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# Brown coals and lignites — Determination of acetone-soluble material (“resinous substance”) in the benzene-soluble extract

## 1 Scope

This International Standard specifies a method of determining the mass fraction of acetone-soluble material (“resinous substance”) in the benzene-soluble extract from brown coals and lignites.

NOTE The acetone extract will also contain a percentage of wax dissolved simultaneously with the “resinous substance”.

## 2 Normative references

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

ISO 975, *Brown coals and lignites — Determination of yield of benzene-soluble extract — Semi-automatic method*

## 3 Principle

The sample of benzene-soluble extract from brown coal or lignite obtained by the procedure described in ISO 975 is extracted with acetone at a temperature of 18 to 22 °C. The soluble fraction is filtered or centrifuged off and, after evaporation of the solvent, dried to constant mass.

The percentage of acetone-soluble material is calculated from the mass of residue after drying.

## 4 Reagent

4.1 **Acetone**, of analytical reagent grade.

**WARNING — Acetone is flammable, and toxic by inhalation, ingestion or skin absorption**

## 5 Apparatus

5.1 **Centrifuge**, capable of operating at 1 600 r/min.

The rotational frequency of the centrifuge shall be sufficient to ensure separation of the soluble fraction from the parent coal.

5.2 **Glass centrifuge vessels**, either cylindrical or conical, of capacity 15 ml and fitted with ground-glass stoppers, for use in the centrifuge.

5.3 **Evaporating dish**, of glass or silica, about 20 mm high and 50 mm in diameter.