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Paper, board and pulps — Determination of residue (ash) on ignition at 900 °C

Papiers, cartons et pâtes — Détermination du résidu (cendres) après incinération à 900 °C

Reference number
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Foreword

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The committee responsible for this document is ISO/TC 6, *Paper, board and pulps*.

This fifth edition cancels and replaces the fourth edition (ISO 2144:1997), which has been technically revised.

Introduction

The magnitude of the residue on ignition is related to, but not equal to the content of mineral constituents in the sample. For coated and filled products, the amount of added mineral constituents can only be calculated from the result if the loss on ignition of the particular pigment used is known. This value varies from one pigment to another and also between different batches of the same pigment. For China clay, the residue on ignition at 900 °C varies from 89 % to 86 % and for calcium carbonate, it is about 56 %. If lower ignition temperatures are used, the corresponding figures will increase, but there is no guarantee that they will become exactly 100 % at any temperature.

For pulps and other materials without any added minerals, the residue on ignition is a measure of the amount of unwanted mineral constituents such as silica, silicates, particles of minerals, etc. Some soluble inorganic constituents such as sodium chloride will escape the determination, whereas sulfates will normally be retained.

The determination is mainly used as a screening test for checking the overall quality of a product, in many cases against, specifications. The ignition procedure described can be used as a preliminary step when determining particular mineral constituents.

NOTE Determination of residue on ignition at 525 °C of pulps is described in ISO 1762[1].