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Paper and board — Automated off-line testing of physical properties for CD (cross direction) profiles

Papier et carton — Essais hors ligne — Mesure des propriétés physiques pour profils ST (sens travers) sur bancs automatisés

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Contents

Page

Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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

Introduction

The automated off-line testing of cross direction (CD) profiles of paper and board was introduced in the 1980s. The apparatus available then was equipped with various modules for the determination of basic physical properties such as grammage, thickness, Bendtsen roughness, air permeance, etc. In the 90s, more advanced modules were developed for tensile, tear and bending testing. Modules for the measurement of the optical properties with the C/2°, D50/2° and D65/10° illuminants are also available.

The principal benefits of automated off-line testing are the speed with which the results are obtained and the small number of staff required to operate the testing apparatus.

Testing with stand-alone instruments implies much longer time before the results are available. Automated off-line testing improves the repeatability in testing as the operator dependency disappears.

In most of the countries producing paper and board, some type of automated off-line testing of CD profiles is carried out.

For the determination of physical properties, this document refers, where possible, to the relevant International Standards for the description and calibration of the equipment required. The results from automated off-line testing are widely accepted by the customers although the conditioning requirements stated in ISO 187 are not met.