

**Gofreeritav materjal. Tasapinnalisele survele
vastupidavuse määramine pärast laboratoorset
rihveldamist**

Corrugating medium - Determination of the flat crush
resistance after laboratory fluting

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 7263:2011 sisaldab Euroopa standardi EN ISO 7263:2011 ingliskeelset teksti.

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English Version

Corrugating medium - Determination of the flat crush resistance
after laboratory fluting (ISO 7263:2011)

Papier cannelure pour carton ondulé - Détermination de la
résistance à la compression à plat après cannelage en
laboratoire (ISO 7263:2011)

Wellenrohpapier - Bestimmung des
Flachstauchwiderstandes an labormäßig gewelltem
Wellenpapier (ISO 7263:2011)

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Foreword

This document (EN ISO 7263:2011) has been prepared by Technical Committee ISO/TC 6 "Paper, board and pulps" in collaboration with Technical Committee CEN/TC 172 "Pulp, paper and board" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

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Endorsement notice

The text of ISO 7263:2011 has been approved by CEN as a EN ISO 7263:2011 without any modification.

Contents

Page

| | |
|---|----|
| Foreword | iv |
| Introduction..... | v |
| 1 Scope..... | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Principle | 1 |
| 5 Apparatus..... | 2 |
| 6 Sampling | 4 |
| 7 Conditioning | 4 |
| 8 Preparation of test pieces..... | 4 |
| 9 Procedure..... | 4 |
| 9.1 General | 4 |
| 9.2 Testing immediately after fluting..... | 4 |
| 9.3 Testing after 30 min of reconditioning..... | 5 |
| 9.4 Fluting and testing | 5 |
| 10 Expression of results | 5 |
| 10.1 Flat crush resistance..... | 5 |
| 10.2 Flat crush resistance index | 6 |
| 11 Precision | 6 |
| 12 Test report..... | 6 |
| Annex A (informative) Maintenance of fluting rolls (horizontal type)..... | 7 |
| Bibliography..... | 8 |

Introduction

The flat crush resistance of laboratory-fluted corrugating medium is regarded as an important property because it is an indication of the potential flat crush resistance of corrugated fibreboard made from that medium. The corrugated medium is fluted by passing it between heated rollers. Two different test procedures are then widely used:

- a) the fluted corrugating medium is compressed immediately after fluting (i.e. 5 s to 8 s after fluting);
- b) the fluted corrugating medium is conditioned for 30 min to 35 min under standard laboratory test conditions before being compressed.

Procedure a) generally gives considerably higher results than those obtained with procedure b). The differences in results are claimed to be caused by

- the lower moisture content (and thus higher stiffness) of the unconditioned fluted corrugating medium, and/or
- the change in flute profile which occurs during the conditioning period.

Since considerable advantages are claimed for both procedures and both are widely used, this International Standard describes both procedures.

A method of determining the flat crush resistance of manufactured corrugated fibreboard is given in ISO 3035^[1].

Corrugating medium — Determination of the flat crush resistance after laboratory fluting

1 Scope

This International Standard specifies two methods for the determination of the flat crush resistance of a corrugating medium after laboratory fluting.

The procedures are applicable to any corrugating medium intended to be used, after fluting, in the manufacture of corrugated board.

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 186, *Paper and board — Sampling to determine average quality*

ISO 187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

ISO 536, *Paper and board — Determination of grammage*

ISO 13820, *Paper, board and corrugated fibreboard — Description and calibration of compression-testing equipment*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

flat crush resistance

maximum force that a corrugated test piece will withstand before the flutes collapse under an increasing force applied perpendicular to its surface

NOTE Flat crush resistance is expressed in newtons.

3.2

flat crush resistance index

flat crush resistance divided by the grammage

NOTE The result is expressed in newton square metres per gram (Nm²/g).

4 Principle

Fluting of the corrugating medium by passing it between heated rollers, and its formation into single-faced corrugated board using pressure-sensitive adhesive tape as the facing. Application of a crushing force, in the direction perpendicular to the plane of the flutes, and determination of the flat crush resistance.