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# INTERNATIONAL STANDARD **ISO** 3039



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## **Corrugated fibreboard — Determination of the grammage of the component papers after separation**

*Carton ondulé — Détermination du grammage des papiers composants après leur séparation*

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## FOREWORD

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Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3039 was drawn up by Technical Committee ISO/TC 6, *Paper, board and pulps*, and circulated to the Member Bodies in January 1973.

It has been approved by the Member Bodies of the following countries :

Belgium	Hungary	South Africa, Rep. of
Bulgaria	India	Spain
Canada	Ireland	Sweden
Czechoslovakia	Israel	Switzerland
Egypt, Arab Rep. of	New Zealand	Thailand
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France	Poland	United Kingdom
Germany	Romania	

The Member Body of the following country expressed disapproval of the document on technical grounds :

U.S.A.

# Corrugated fibreboard — Determination of the grammage of the component papers after separation

## 1 SCOPE

This International Standard specifies a method for determining the grammage of the individual papers from which corrugated fibreboard has been made.

## 2 FIELD OF APPLICATION

This method is applicable to all types of corrugated fibreboard.

## 3 REFERENCES

ISO/R 186, *Method of sampling paper and board for testing*.

ISO 187, *Paper and board — Conditioning of test samples*.<sup>1)</sup>

ISO 536, *Paper and board — Determination of grammage*.<sup>2)</sup>

## 4 PRINCIPLE

Treatment of test specimens of corrugated fibreboard so that the individual components can be separated. Drying and conditioning of the component papers followed by determination of their grammage in accordance with ISO 536.

## 5 APPARATUS

**5.1 Tank**, of sufficient size for immersion of the corrugated fibreboard test pieces, to contain cold or hot water.

**5.2 Means for drying the test pieces when separated**. (An apparatus similar to the type of drier used for drying photographic prints is suitable.)

**5.3 Cutting instrument** having a circularly guided knife to cut test pieces with an area of 100 cm<sup>2</sup> (diameter 113 ± 0,5 mm) should preferably be used.

**5.4 Balance**, with sensitivity of 0,01 g or better over the entire measuring range. This will make it possible to determine the grammage of papers from test pieces of 100 cm<sup>2</sup> area to a precision of 1 g.

## 6 SAMPLING

Sampling shall be carried out in accordance with ISO/R 186.

Individual specimens of sufficient size to provide the test pieces shall be cut from the samples. The surfaces of the corrugated fibreboard shall be free from any damage that may affect the test results. The specimens should preferably be taken from non-printed and non-coated fibreboard.

## 7 CONDITIONING

The specimens shall be conditioned in accordance with ISO 187.

## 8 PREPARATION OF TEST PIECES

Cut circular or square test pieces each of not less than 100 cm<sup>2</sup> area, using preferably a cutting device as described in 5.3. The cut edges shall be clean and perpendicular to the faces of the corrugated fibreboard.

## 9 PROCEDURE

### 9.1 Separation of component papers

Immerse the test pieces in water long enough to cause the component sheets of paper to separate spontaneously or with an extremely light pull. Care shall be taken, in separating the papers, that no fibres are removed from a surface and adhere to the adjoining one. To accelerate the process and to separate corrugated fibreboard in which the adhesive is more or less moisture resistant, hot water may be used.

1) At present at the stage of draft. (Revision of ISO/R 187.)

2) At present at the stage of draft. (Revision of ISO/R 536.)