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**Packaging - Determination of crease stiffness for folding
cartons**

包装 折叠纸盒折痕挺度的测定

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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1 Scope

This document describes the method for determining the crease stiffness for folding cartons.

This document is applicable to the design, production and inspection of folding cartons.

It can be used as a reference for other folding paper packaging products.

2 Normative references

GB/T 450

GB/T 10739

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Folding carton

The cardboard is die-cut, creased, and bonded to be folded into sheets, and can be formed into a cardboard box when used.

[Source. GB/T 34053.6-2017, 3.1, modified].

3.2 Crease stiffness

The ability to resist bending and deformation, which is generated by bending the cardboard at a certain angle along the crease line toward the forming direction.

5.2.1 Chuck

The width is not less than 38 mm, the depth is (22.0 ± 0.2) mm, and it can be adjusted in the direction perpendicular to the plane of the specimen. In the initial position, the chuck fixes the specimen in the vertical plane, and the chuck shall be able to rotate $(90.0 \pm 0.5)^\circ$ around the rotation axis (crease line).

5.2.2 Force measuring knife edge

The length of the force-measuring knife edge shall not be less than 39 mm and shall be parallel to the rotation axis of the chuck and (10.0 ± 0.1) mm away from the rotation axis.

5.2.3 Force measuring device

The accuracy of the force sensor is $\pm 1\%$.

6.1 Sampling

When the test is used to evaluate a batch of samples, sampling shall be carried out in accordance with the provisions of GB/T 450. When the test is used to evaluate other types of samples, the samples taken shall be representative.

6.2 Temperature and humidity treatment and test environment

The specimens shall be subjected to temperature and humidity treatment under the environmental conditions specified in GB/T 10739, and the specimen preparation and testing shall be carried out under these conditions.

6.3 Sample cutting

Cut the specimens with a sampler, the dimensions are shown in Figure 2. The width of the specimen is (38.0 ± 0.2) mm, the length is not less than 36.0 mm, and the distance from the center of the crease line to a cutting edge is (25.0 ± 0.2) mm. Cut at least 10 specimens in each direction to be tested. The specimens shall be free of damage and have straight and smooth edges. The specimens shall not be bent before testing.