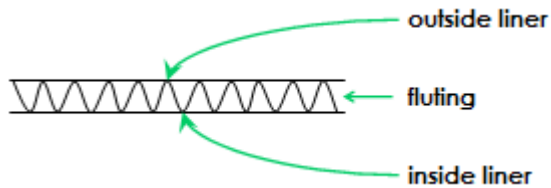


Technical Explanation of Corrugated Board

1. Understanding Corrugated Board



A standard sheet of corrugated board is made from three components: a sheet of corrugated fluted paper, sandwiched between an outside liner and an inside liner. Each side of the fluting is glued to a sheet of flat liner paper (see diagram).

This gluing fixes the flutes and also gives the lightweight paper especially high stability.

2. Types of Paper

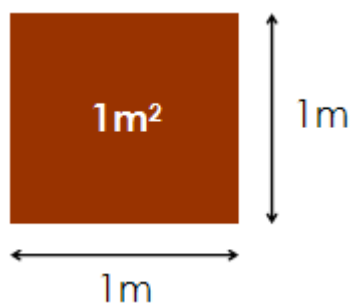
The basic material for the production of corrugated board is paperboard. There are two main types of paperboard: Kraft and Test.

Kraft paper. Comes from softwood trees – the strongest form of paper and the best to print on this is the most common outside liner for corrugated boxes.

Test paper. This is a so-called double layer paperboard (duplex paper). Most standard cartons use recycled paper for the fluting and the inside liner.

Each sheet of liner paper is commonly composed of two layers. The finer cover layer is ideal for printing and aesthetics, and the basic layer is excellent for adhesion and strength.

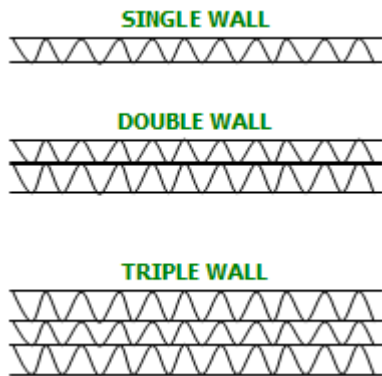
3. Paper Weight



After understanding the paper type, the next thing to look at is the thickness. This is measured the same way for all papers.

Take one square meter of your paper and weigh it. The result is XX grams per square meter (which is abbreviated to **gsm**). E.g. photocopy paper = 80gsm

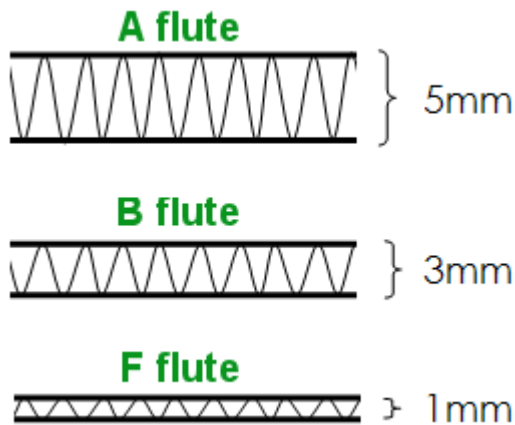
4. Corrugated Walls



So far, we have looked at corrugated board made from a single fluting with two liners. This is referred to as **single wall**. However, an additional fluting and wall can be glued together to make a stronger board, called **double wall**. This is suitable for packing heavier goods.

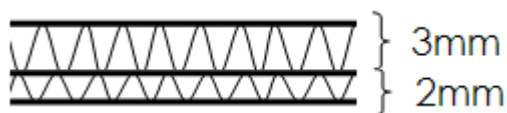
If you need to package extremely large and heavy items (for example, large machine parts), **triple wall** boxes can be used. This adds yet another fluting and liner.

5. Common Flute Sizes



Corrugated board has five common sizes of fluting, 'A', 'B', 'C', 'E' and 'F'. The letter designation refers to the order they were invented, not their relative size.

- A = 5mm fluting
- C = 4mm fluting
- B = 3mm fluting
- E = 2mm fluting
- F = 1mm fluting



Double wall cartons can use combinations flute sizes. For example, the diagram to the left shows EB board.

6. Board Grade Explanation

Combining all of the above, it is possible to specify a simple short description that defines the board grade of a box. For example: **125K/B/125T**.

This means a corrugated box, made from 125gsm Kraft outer liner, B fluting and 125gsm Test inner lining.