

## TYPES OF CORRUGATED MATERIALS



### Single Face Sheet

A corrugated medium with a linerboard facing adhered to one side. It can be manufactured in sheets or rolls. Single face is principally used as a wrapping material, and occasionally for interior packing or padding.

**Single Wall Corrugated** A corrugated medium with a linerboard facing adhered to both sides. It is also referred to as “Double Face”. This popular and versatile 3-ply construction is converted into a wide variety of containers and packaging components.

- Most popular
- Wide range of strengths

### Double Wall Corrugated

Two corrugated mediums with a linerboard facing adhered between them and to both sides. This 5-ply construction is most applicable for packing heavy items where high rigidity and protection is required.

- Made up of B and C Flutes
- Extra padding and strength
- Great for stacking heavy items

### Triple Wall Corrugated

Three corrugated mediums and four linerboard facings. This 7-ply construction is used where large container sizes are involved, such as pallet packs.

- Made up of two layers of C Flute and one layer of B Flute
- Very strong and crush resistant
- Excellent for storage and transit

To vary the look of your corrugated box, you have the following choices in outside liner grades:





- Kraft — Naturally brown in color. The most commonly used and least expensive liner.
- #3 White — Mottled white, with underlying Kraft showing through. Provides a cleaner look and better printability than Kraft.
- #1 White — Bleached bright white. Offers very good printability, but easily soils during transit.
- Premium Grades — Surfaces have a bright white clay coating, minimizing porosity so printing inks sit up on the surface. Gives excellent printability as colors are more vibrant and lower absorbency improves registration. However, because of the high holdout, ink rub can be a problem.
- Litho-printed labels (for labels laminated onto corrugated boxes).

### Corrugated Flutes

The inventors of corrugated board applied the same principles to paper as ancient architects did to buildings. When trying to

uphold heavy loads, the most efficient way is by using an arch. Generally the larger flute profiles give greater vertical strength and cushioning. The smaller flutes help enhance graphic capabilities while providing greater structural integrity. By experimenting with flute profiles, designers can vary compression strength, cushioning strength and thickness. Flutes come in several standard sizes such as A, B, C, E, and F. We currently convert all the above flutes in our facility. Different flute profiles can be combined in one piece of combined board. For instance, our double wallboard uses a B-C flute combination.

**Standard US Corrugated Flutes**

Flute Designation*	Flutes per Linear Foot	Flutes Thickness (in.)	Flutes Cross Section
A Flute	33+3	3/16	
B Flute	47+3	1/8	
C Flute	39+3	5/32	
E Flute	90+4	1/16	

\*Other specialized flute sizes, including K, F, and N, are less common but also available. (source: The Wiley Encyclopedia in Packaging Technology)