

Bubble Wrap Guide

Invention of Bubble Wrap

Bubble wrap was invented in 1957 by two Americans called Marc Chavannes and Al Fielding who were trying to make plastic wallpaper with a paper backing. The wallpaper was unsuccessful! More importantly though they realised their invention could be used as a cushioning material so the project resulted in a wonderful material for packaging and bubble wrap was born. Until then, abrasive paper was the only packaging material, and it was often useless for heavy or delicate items. The company they founded in 1960 now has a turnover of over \$3 billion.

How is Bubble Wrap Made?

The raw material for bubble wrap is polyethylene. Polyethylene is probably the most commonly used polymer in everyday life. It is the polymer that is used to make grocery bags, shampoo bottles, children's toys, and even bullet-proof vests! The polyethylene enters the bubble wrap factory in a bead form (the size of a small pea).

This beaded polyethylene travels through a corkscrew and is heated (a process known as extrusion) and melted into a liquid to create a clear, plastic layer. Two flat layers of film are produced from this process. One layer is passed over a steel cylinder with holes in it. A powerful vacuum pump inside the steel cylinder pulls the flat polythene layer tight over it to create the bubble. The second flat layer of film is passed over the cylinder-laminating itself to the first layer to seal everything together and make it impossible for air to escape the bubbles.

The two most common sizes of bubble available (large and small) are made using cylinders with different sized holes. Small bubble has a diameter of 10mm and a height of 4mm per bubble - large bubble has a diameter of 20mm and a height of 7mm.

Benefits of Bubble Wrap

Bubble wrap is the best way to package fragile and heavy items to ensure they will not break or chip. Compared to other cushioning materials, bubble wrap holds its air longer and more consistently. It is also thicker than most cellular cushioning materials, making it stronger and more durable.

Bubble wrap will also save you money on shipping fragile items. Because you do not need much bubble wrap to properly secure an item, less material is used to provide better safety and security for the item.

Bubble wrap also provides some environmental benefits. Not only is it recyclable at many independent recycling centres, but people can use it over and over without it reducing its effectiveness. The fact that less material is used for packaging when you choose bubble wrap also emerges as an environmental benefit.

Manufacturers love bubble wrap because they have found that when they use it for shipping their products, a much smaller amount of replacements are needed. When using other packaging materials, the number of replacement items is always elevated.