# **BLOCKING & FILLING**

Paper Pad, Air Pad, Foam-in-place, and Loose Fill



# Why Use Blocking & Filling?

By blocking, bracing, and cushioning the products, the inner packaging together with the outer packaging protects your products against transport and storage damages. The inner packaging surrounds the product and can also be designed to protect against abrasion, corrosion or electro static discharge (ESD).

These strong packaging materials fill the empty spaces in your outer packaging, effectively blocking, bracing and cushioning your products during transport and storage.



# **Benefits of Blocking & Filling Products:**

- Flexible & Adapatable to customer needs
- Low storage cost
- Minimal maintenance
- Reusable and recyclable
- No tied-up capital
- Easy-to-use

# **Bubble Wrap**

Bubble wrap is a light and flexible packaging material made of low-density polyethlene, ideal for protecting fragile and irregularly shaped products. It gives a very good surface protection and prevents against shock. Bubble wrap can also be used as void filing.

Available in sheets and rolls, ESD, and VCI, bubble wrap is used for many applications by numerous industries including retail, electronics, glass and automotive.

Bubble wrap is soft, transparent, impermeable, recylable, and has extremely good humidity resistance.

### Air Pad/Air Pak

Air Pad/Air Pak are fast, easy to use, and efficient void filling solutions which can also be used as a blocking material for lightweight products. The systems are economical, easy to use for versatile applications, reliable, clean, and environmentally friendly.

Air pad/pak are reusable and recyclable and create very little waste since they consist of 99% air and 1% film. This provides both economic and environmental advantages. Less material, less weight and less storage space is needed compared to many other void filing materials.

A single air pad can withstand an impact over 1000 N, depending on the film used. Air pads are suitable for regularly shaped products without sharp edges and protruding parts.

The machine required for filing and shaping the air pads can be rented, meaning that capital is not tied up in activies that are not part of core-business areas.

AirPak is a packaging material made of PE film and air, giving superior protection against shock and abrasion. Standard as well as custom designs are available in two and three dimensional shapes such as bags, cushion mats, pilows, filing bags and corner protectors. It can also be used for blocking and filing applications.

AirPak is made of PE film formed into a series of adjoining but independent air tubes connected via one-way valves. If one chamber is punctured the others remain inflated.

The good cushioning performances often make it possible to reduce the size and material use for the outer packaging. AirPak is deflated when delivered which means low delivery and storage costs. The only equipment needed is an air compressor with a nozzle and an air pressure valve.





#### Honeycomb

Honeycomb is a packaging material consisting of kraft paper formed into continuous, uniform, hexagonal cells. Due to the wide range of applications, honeycomb can be considered as both inner and outer packaging. Apart from blocking and filling it can also be used as a shock absorbing product, separator, or even for pallets.

Honeycomb is completely recyclable since it is made only of kraft paper and water based glue. Die-cutting possibilities and different thicknesses from 10 to 110 mm give flexible design possibilities. The material is strong with high resistance to vertical compression. The surface can also be PE film coated to achieve humidity resistance.

Anything from small electronic components to large generators can be protected with honeycomb. The packaging can be designed for products as light as a cell phone or as heavy as automotive parts weighing several tons.

The lightweight and flexible design of honeycomb make it a competitive alternative to other products such as expendable wooden pallets. Honeycomb has gained wide acceptance in the United States, Japan, and Europe thanks to its many advantages.



# Paper Pad

Paper pad is a blocking, filling, and wrapping material that is effective for irreguarly shaped products and fragile parts. Cushioning proprerties can also be achieved depending on the system used.

Paper pad is an on-demand system consisting of a machine and kraft paper. It is a flexible and reliable packaging system that is easy to handle and can be used for a large range of products.

There are two kinds of systems available, single, and multi-ply. Systems adapted for conversion of single-ply kraft paper are used for void-fill applications and are one of the fastest and most economical systems available for void-filing. Machines for multi-ply kraft paper convert the paper into cushioning pads.

Kraft paper is pure recyclable paper with no glue or stitches. It is delivered in rolls or piles and demands little storage space compared to the amount of packaging material it produces.



#### Loose Fill

Loose fill is primarily a void filling packaging material. Polystyrene is traditionally often used as raw material but loose fill can be made of different materials.

Corn starch and recycled paper are eco-friendly raw materials which are increasingly in popularity. The fill is one hundred percent biodegradeable and suitable for composting or recycling without doing harm to the environment. The manufacturing process for corn starch loose fill is low energy consumption and demands no chemical agents as only water is added. Thanks to the organic raw material antistatic propreties are also achieved.

Loose fill is suitable to fill small spaces and for products and kits of small series, hence it is a flexible packaging material. However, it is expensive, and has low shock absorption and low capability of blocking.

#### Foam-In-Place

Foam-in-place is a fast, easy, and versatile processs for on-line and on-site production of productive polyurethane foam packages. This solution has the advantages of being economical, fast, easy, versatile and yet offering high protection.

## The Nefab Solution:

Blocking and filling can help protect products from transport and warehousing damage. Nefab has vast experience in all areas of product protection, with a long history as supplier of sensitive products to the telecom, vehicles, and defence industry.



