FOAM CUSHIONING

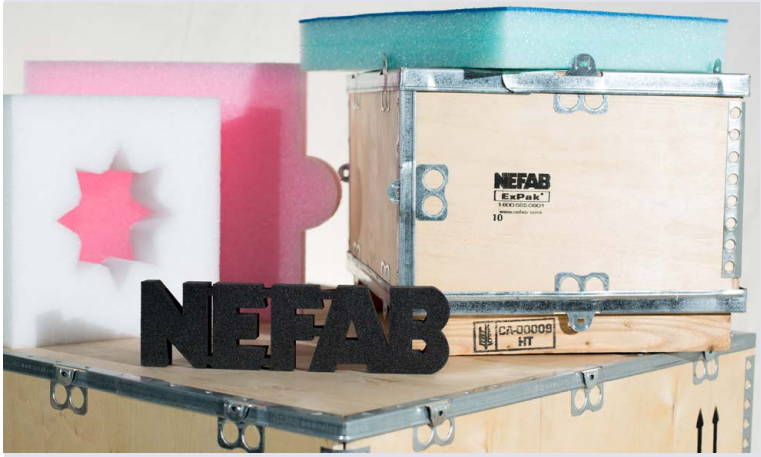
Polyethylene, Polypropylene, Polystyrene, and Polyuerthane

Protect your damage-prone products

Foam is widely used as a protective packaging material and has unique shock absorbing abilities. There are two main manufacturing techniques that are used to meet required specifications. Foams can be either molded or converted. Molded foam demands more complicated tooling but is often an economically preferable choice for large quantities.

The quality and capabilities of the foam raw material is determined by the choice of polymer, its density, and the manufacturing technique. Choice of material, quality, manufacturing, method etc. decides the durability of foam products that can be made for both expendable and returnable applications.

Different additives can also be incorporated into the foam during the manufacturing process to obtain ESD protection, fire resistance, or corrosion protection.



Factors to consider

How fragile is the product? What is the value of the product? How will the product be shipped? What is the estimated volume of the product? These are some of the questions to consider before you choose the proper packaging material.

Cushioning can be molded or fabricated, depending on the customer requirements. The materials selected are also specific to individual needs.

Many cushioning materials protect the product not only from transportation shocks, but also from static-interference, temperature variations and other external threats.

Types of Foam Packaging Materials:

Polyethylene (PE or EPE) is the most common polymer and can be molded or fabricated depending on the requirements. It is a moisture resistant and resilient packaging material with good cushioning performance. One main feature with PE is the possibility to recycle it.

Polypropylene (PP or EPP) is a molded foam that just like polyethylene, is moisture resistant and resilient with good multiple drop cushioning performance.

Polystyrene (PS or EPS) is a molded foam with good insulation capability and good first drop cushioning performance.

Polyurethane (PU) is commonly fabricated, but can also be molded. The material is recognized as mattress or furniture material and is suitable as cushioning for light weight products and as interior packaging in cases.

Specific foam properties (not applicable to all):

- Moisture resistant and resilient
- Resistant to humidity
- Does not absorb any water

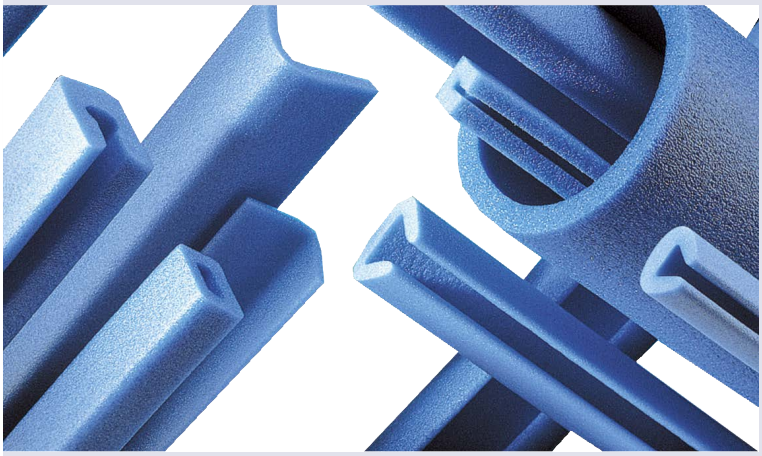
Benefits of Foam Cushioning:

- Excellent protection from shock and vibration
- Customizable
- ESD protection available
- Broad range of thicknesses, densities and models
- Lightweight

Foam Profiles

Foam profiles can be provided in a broad range of models with varying densities and shapes that are suitable for different applications. The foam profiles are reusable and made of recyclable polyethylene that gives good multi drop cushioning. This lightweight product is also resistant to humidity and does not absorb any water.

Foam profiles can easily be converted and customized to meet specific customer needs.



Common types of foam profiles include:

- U-profile – for edge and corner protection
- L-profile – for corner protection
- WS-profile – for wind screens and other glass products
- O-profile – protection for tubes, pipes, poles etc
- C-profile – edge and corner protection for special applications
- System profile – designed to give shock and vibration protection to sensitive products

The quality and capabilities of the foam raw material is not only determined by the choice of polymer but also by its density and the manufacturing technique. Choice of material, quality, manufacturing method etc. affects the durability of foam products that can be made for both expendable and returnable applications. Different additives can be incorporated into the foam during the manufacturing process to obtain ESD protection, or fire resistance.

Foam packaging solutions should be designed based on product fragility, transporation environment and any special circumstances encountered during the packing and transportation of the product. They can easily be modified for ESD or corrosion protection applications if needed.

When products need protection from vibration and shocks, Nefab is able to design, develop and implement a packaging solution that ensures the product can be transported safely. A wide range of different materials is available and with Nefab's expertise in packaging logistics, the optimal solution for protecting the goods is provided.

NEFAB provides various types of cushioning, designed and tailored to the customer's specific requirements. Nefab currently services the aerospace, telecomunications, vehicles, medical, and many other inudstry markets. Although unique in their applications, they share the same emphasis on product protection. Nefab cushioning provides this much needed protection.