



EMPHA

EMPHA (an abbreviation for European Manufacturers Paper Honeycomb Association) is the pan-European association for manufacturers of paper honeycomb core products. It was founded in Amsterdam in 2010, and aims to represent the paper honeycomb industry. EMPHA works to fulfill its mission for the benefit of member companies in a variety of functions.



Scope and functions

- Represent members' interests whenever, and wherever, possible;
- Provide a central source for industry information;
- Act as an information source on legislative issues;
- Establish and maintain industry-related test methods and standards;
- Provide a proactive European meeting forum for members.

The objectives of the association can be summarized as follows:

- To create a platform for the manufacturers of paper honeycomb core in Europe;
- To look after the interests of this industry towards third parties in an active and proactive way;
- To give added value and shape to the positioning of paper honeycomb core by means of standards and by promoting its sustainability.

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PAPER HONEYCOMB

Paper honeycomb: Superior strength, rigidity and low aerial weight

Paper honeycomb is a relatively low cost base material with low environmental impact and therefore the most cost-effective core material available.



Paper honeycomb core was originally developed for the aviation and aerospace industry. First used in the aeronautical industry in the 1920's the product has since been widely adapted by industries using the core in lightweight sandwich panels such as doors and furniture.

Today you will find the product is all around you, however rarely visible. For instance in our housing, our offices and our cars, paper based honeycomb core is practically all around us.

Versatility and surprising qualities

Paper honeycomb core is a series of hexagonal shaped cells, nested together creating a sheet when expanded with approximately 95% open space.



The basic geometry of honeycomb provides a number of unique characteristics:

- Highest strength-to-weight ratio as a sandwich core;
- Highest stiffness-to-weight ratio as a sandwich core;
- Predictable and uniform crushing strength under compression;
- Processing applications in-line with low cubic input and high volume output;
- Low impact on environment and society, favorable impact on economy.

For the designer the honeycomb is a structural product whose unique characteristics can be used to create new products, improve existing products and solve design problems. For the industry the honeycomb creates sustainable cost savings.

Paper honeycomb core is available in 3 physical forms:

- Continuous unexpanded honeycomb core. This form is efficient and economical for large users. Shipped in continuous pallet load lengths, the coiled core is several hundreds of m2 when expanded mechanically at the point of use;
- Slices unexpanded. Certain industries require cut-to size pieces of honeycomb tailored to their application. The dimension is fit-to-use when locally expanded;
- Pre-expanded sheets. This type includes the expansion of the slices and is manufactured to the specific dimensions, length, width and height to fit the customer's application.



The photographs in this brochure are from some members of the association. Further disclosure or reproduction is not allowed.