

## FAQ's - Frequently Asked Questions

### What sort of material is Esthec®?

Esthec® is a composite of high-quality polymers and synthetic fibres. The material is made up of twenty-five ingredients and its properties make it highly suitable for nautical applications. Bolidt has over forty-five years of experience in delivering special synthetic applications. Materials akin to Esthec® have been applied very successfully for some time now, for instance on cruise ships.

### How is Esthec® made?

The production of Esthec® can be broken down into four stages. The first stage is the production of the liquid material, which is then processed into sheets in the sheet factory. At this point, Esthec® reaches its ultimate physical properties. Next, a robot (CNC) mills the form out of the sheets according to a digital drawing, so that the material perfectly fits the gangway, cockpit, sun deck or tender garage. The pattern is also applied in this production stage. After this, the material is ready to be installed.

### Is Esthec® attractive from a price perspective?

Yes, Esthec® has a number of great advantages. The material can be installed in a fraction of the time that a teak deck requires. Esthec® is lighter, which has the added advantages that less keel ballast is needed and less fuel is used. Esthec's recommended selling price ranges from € 700 to € 1200. The price includes delivery and glueing of a custom-made deck. A customized offer can be requested from the specialist installers or the shipyard. If the material is delivered in sheet form, prices will naturally be lower.

### How are sales and delivery organized?

Esthec® is produced at and sold out of Bolidt Kunststofoppassing's headquarters in Hendrik Ido Ambacht. The sheet material and the bespoke products are exported all over the world and installed by independent installation companies and shipyards. Many shipyards have already included Esthec® decks on their list of options.

### How is the material fixed?

Esthec® can be glued using the so-called vacuum method. In comparison with teak, the same glues can be used: 2K epoxies, sealants like Sikaflex, 2K urethanes or VHB.

### Does Esthec® last long?

The many years of practical experience in professional shipping have shown that Esthec® is extremely durable and wear resistant. Where teak warps, splits or fades, Esthec® retains its form and colour. The composite material and joints have been saturated with colour, so that it can even be sanded down after years of use. The material meets the accepted international standards that have been set up in laboratories.

**In which sizes can the material be supplied?**

Currently, the sheets are supplied in a maximum length of 3 metres and a width up to 1.20 metres. The sheets can be made to size and seamlessly joined together on request.

**Does Esthec® warm up in the sun?**

Just like teak, Esthec® warms up after being out in the sun all day. Washing it down with water is a simple method to cool the deck.

**Is Esthec® something like PVC or rubber?**

No, Esthec® is a unique product and not comparable to PVC or rubber products. The material is made up of other raw materials, performs far better and is available in more colours. Whereas PVC is geared to do-it-yourselfers, Esthec® is the ultimate solution for professionals.

**Does Bolidt prescribe how Esthec® should be installed?**

Certainly not. The versatility of the material allows every professional to work according to his or her own vision. Besides: every situation is different. Esthec® offers professional installers the freedom to realize the best solution in every situation. Guidelines are available if required.

**Is it possible to create patterns in the material?**

So far, requests for teak patterns predominate, but in principle any pattern can be incorporated in an Esthec® deck. Esthec® is already watertight as it is. The joints therefore only serve an aesthetic purpose and can be filled with any joint sealant. Bolidt recommends the Esthec® Joint Compound, but other options are also possible.

**Can I receive samples for evaluation?**

Yes, Esthec® stocks miniature samples. These samples have no joint pattern, but they do have the standard Esthec® texture and colours. Larger samples can be produced on demand. This requires a lead time of about six weeks.

**Does Esthec® lighten ships?**

Yes, Esthec® is as light as a feather compared to teak. Esthec® weighs 7.8 kg/m<sup>2</sup> and is 6 mm thick. In comparison with the common 20 – 25 mm of teak, this means a considerable saving in weight. Less ballast needs to be fitted at the keel, it has a positive effect on fuel consumption and ships with Esthec® decks have a shallower draught.

**What is the delivery time?**

Esthec® has a delivery time of approximately six weeks. A condition for the acceptance of an order is the availability of a CAD drawing. The desired colours of the deck and the joints also have to be known. How long the processing firm will subsequently need to install the deck depends on their planning and the amount of detail involved.

**Can the grain follow the curvature of the ship?**

The texture is created in the factory and is the same per sheet. The application specialist can however achieve the desired rounding, before or after installing the deck.

**Is Esthec® available in a thickness of less than 6 mm?**

No, 6 millimetres is the minimum thickness for the time being. Bolidit is continuously working on the enhancement of its products. It is possible that thinner sheets will become available in the future.

**Can Esthec® be installed on teak or aluminium?**

It is essential that Esthec® is applied on an even and grease-free base. Because of the limited thickness of the material, irregularities will be more conspicuous than with the usually thicker and stiffer teak. The preparations before installation are therefore important. The installation itself is a relatively simple and quick process. Suitable bases are steel, GRP and aluminium.

**Can I cover stairs with Esthec®?**

This is possible if the material is supported by a base layer. With our CNC machines we can produce any form and any dimension.

**Is Esthec® imitation teak?**

No, definitely not. Esthec® is a material with its own identity and unique properties. The material offers possibilities that were unthinkable in the teak era. Esthec® is unequalled in terms of durability, maintenance friendliness, freedom of design, environment friendliness and installation speed.

**How should Esthec® be maintained?**

Esthec® can be cleaned with a soft or hard broom, with green soap or an aggressive abrasive product. It is even possible to remove algae with a high-pressure cleaner. Esthec is wear resistant and will not easily break.

**In what way do shipyards benefit from Esthec®?**

There are a number of great advantages. The main benefits are in the constant quality and the installation speed. Even though the base surface requires more attention in terms of preparation, the actual installation can be done in a fraction of the time required for a teak deck. While a six week slot needs to be scheduled for teak, Esthec® can be installed in one week. That means that the shipyard can be used more efficiently. Time is money, also in shipbuilding.

**In what way do professional teak installers benefit from Esthec®?**

The supply of teak is declining. Especially high-quality teak is becoming rapidly and increasingly scarce. Esthec® contributes to a future that is not shaped by import restrictions, guarantees a constant quality, enables quick installation techniques and supports a tradition of craftsmanship.