



**When other timber coatings fail
professionals turn to Cuttek**

FACTSHEET No 9 – Cuttek and Engineered bamboo

Important Note: Cuttek Extreme is the ONLY Cuttek product that MAY be suitable for use with engineered bamboo

Bamboo can be a positive choice for the environment, being rapidly renewable, and engineered bamboo products have many unique points of difference with other products. Engineered bamboo can also be a very attractive product that users will want to keep looking good for a long time, however those looking to make the choice of investing in exterior bamboo products need to know upfront that bamboo isn't wood and behaves very differently. It needs a much higher level of care and a completely different kind of approach to ensure it is adequately protected.

Bamboo is a grass, and doesn't contain the extractives which give durability to many timbers. It's also very hygroscopic, meaning it takes up moisture rapidly and this moisture can also dry out very quickly, especially in direct sun. This makes engineered bamboo very susceptible to unsightly black staining moulds and significant surface erosion when exposed to rain and sun meaning that it will split/check and go grey/black rapidly if not properly protected. Additionally, because engineered bamboo absorbs and releases moisture very quickly, most traditional wood coatings, deck stains and oils don't last very long on fully weather exposed material. We have observed that what may work reasonably well on wood for 6 to 12 months can often fail on bamboo material inside 12 weeks from time of application.

While it is possible to use Cuttek Extreme on engineered bamboo where it penetrates below the surface to provide a degree of protection from within, it is vital that an appropriate maintenance protocol is followed.

Some bamboo decking comes pre-coated with Cuttek Extreme which provides initial protection, but further applications straight after install and within the first year are vital to ensure adequate protection. This initial attention to building up durability is a key factor as Cuttek Extreme is a product that has a cumulative effect in the bamboo.

It is also very important to be aware of the fact that there are many engineered bamboo products on the market, of widely varying quality, and Cuttek Extreme may or may not work on your chosen engineered bamboo product despite following our recommendations. Climatic variations also affect the level of protection given by Cuttek Extreme. Whatever the situation, if Cuttek Extreme is to be used then it is vital that the customer inspects their deck on a regular basis after coating and cleans with Proclean or QuickClean at the first sign of mould or surface erosion/splitting, followed by a reapplication of a thin coat of Cuttek Extreme. This must be done as frequently as is necessary.

If Cutek Extreme is to be used on engineered bamboo then our recommendations are as follows:

New bamboo decking which has been factory pre-coated with Cutek Extreme needs at least one thin coat within one month of install. If using a colourtone to alter the existing colour, then two coats will be needed for adequate colour build. A further coat should be applied within 6 months, and another after 12 months.

New bamboo decking which has not been pre-coated with Cutek Extreme should be coated on all sides before installation, and given two further coats with a colourtone within a month of installation, following the application procedure on the label and on this factsheet. A further coat should be applied within 6 months, and another after 12 months.

Bamboo decking which already has another coating that has failed or gone black with mould needs to be completely stripped or sanded back to raw and cleaned with Cutek Proclean. Two to three coats of Cutek Extreme with colourtone then need to be applied, following the application procedure on the label and on this factsheet. A further coat should be applied within 6 months, and another after 12 months.

Very important things to be aware of:

Clear Cutek Extreme can be used without a colourtone, and will fade to a very light natural matt colour over a couple of months, but will resist greying for some time before needing to be recoated. To maintain a 'freshly oiled' look, more frequent oiling is required.

Cutec CD50 or Cutek LowVOC is not suitable for bamboo.

All bamboo end grain, i.e. butt joints, can be especially prone to rapid moisture uptake which results in splitting, checking and mould/fungi problems. We strongly recommend a high attention to detail when installing the deck and for ongoing care. We have observed that more routine protective coats to all end grain sections make a big difference in overall protection and longevity of the engineered bamboo product.

In our many years of testing, observation and user feedback, we have found that some engineered bamboo products are just not suitable for full weather exposed applications despite manufacturer's claims. A roof represents the best protection for these grades of bamboo as it dramatically limits direct sun and moisture. Suitable ongoing care and maintenance is still required even for fully covered decks and structures.

Strand woven bamboo decking.

This is made up of thin bamboo strands that are glued together under very high pressure. Some products can use up to 30 % glue content and the quality of glues can vary significantly which affects exterior performance. The finished product is very dense and the end result has a similar look to tropical hardwood. There are many companies that produce this style of decking and quality varies greatly. We have observed that even the highest grades of strand-woven expand after exposure to full weather and this movement creates problems for traditional film coats and oils and peeling/flaking followed by mould/fungi result.

Cutek Extreme will initially only penetrate a very small amount into exposed bamboo fibre so multiple coats over the first few years will yield better results. Cutek Extreme will not penetrate the glue in strand woven bamboo as it forms a physical barrier. Some products are very prone to surface expansion and become very rough. If this occurs, sanding back to a flat surface using 80 grit paper is the best preparation prior to application of Cutek Extreme.

IMPORTANT NOTE

While the procedures detailed above have proven in some cases to produce a satisfactory result in the decorative coating of engineered bamboo in many countries and are detailed in good faith to assist people, Chemisys does not, and is unable to, offer any warranty or performance guarantee of any type (including but not limited to any warranty or performance guarantee in respect of coating longevity, mould/fungi degradation, and splitting/delamination) for the use of any Cutek/Chemisys products on any bamboo substrate. This is due to the wide variation in the quality of products in the engineered bamboo market including variations in manufacturing processes, varying quality control, varying efficacy of preservative/treatment processes, origin of the raw bamboo, time of bamboo harvest, quality of the glues, place of manufacture etc. Some manufacturers choose to specify Cutek Extreme as suitable for their engineered bamboo product, but this does not mean that we are included or involved in any independent warranties issued or implied by a specific manufacturer or distributor in relation to their product.