



The best solution for wood protection

FACTSHEET No 9 – Cutek® and Bamboo

Note: CUTEKExtreme® is the correct Cutek® product to use with any bamboo

BAMBOO – beautiful, with special requirements

Bamboo is a very fast-growing grass, and quite different to timber in structure. It is naturally void of the extractives that make some timbers very durable. Nevertheless, bamboo shares many features of wood, which makes it a sustainable alternative to wood for many purposes. It is a very dense, hard material – comparable to Jarrah or Oak in hardness, and has remarkable strength. Bamboo has been used as an engineered flooring for many years, and has recently begun to be used as exterior decking, in both strand-woven and laminated products.

However, bamboo in an exterior setting needs more maintenance than many timber species. Even when processed into planks of long laminated strips, bamboo is very hygroscopic – it attracts moisture from the atmosphere. Moisture, whether caused by installation in a damp area, or by exposure to rain, is the primary cause of damage to both bamboo and timber. In general, wood and bamboo shrink as they lose moisture and swell as they gain moisture. This causes warping, twisting, cupping and splitting, and accelerates the surface erosion process.

Unprotected bamboo also attracts mould, bacteria and fungi. Bamboo is particularly susceptible to mildew. Mildew is caused by a type of stain fungi, which differ from decay fungi. Mildew is not capable of degrading the structural components of wood or bamboo; therefore, it does not cause a decrease in strength. Mildew fungi live only on the surface. Like decay fungi, mildew fungi often flourish when excessive water is present. Bamboo can develop mildew growth rapidly, particularly if treated with linseed oil, eucalyptus oil, tung oil or other natural oils, which form a food source for the fungi. And bamboo, being a light coloured substrate, becomes darker and unattractive when covered in mildew.

Keep the water out!

The only way to minimise this damage is to minimise moisture entering the bamboo. Most coatings on the market form a film over the surface of the bamboo or timber—even transparent oils don't penetrate more than a millimetre or so below the surface—and this film forms a temporary barrier to water ingress from above. However, the timber or bamboo continues to expand and contract with heat and moisture (which in its vapour phase can still enter the wood through the uncoated surfaces). This movement causes the film coating to split, allowing moisture and fungal spores and dirt to be trapped under the coating. The coating fails, and in most cases needs to be completely sanded back, or removed with harsh chemical strippers before the bamboo can be re-coated.

The Cutek® difference

Cutek® products work very differently. They **penetrate deeply** into any species of timber, including hardwoods and bamboo, to provide **water repellency** and assist with long term dimensional stability

from the inside, and they don't form a film. They **do not peel off or crack**, but help to **control warping, cupping, and splitting, effectively enhancing the service life of bamboo**. This characteristic ensures that **future recoat preparation consists of a simple washdown** of the bamboo, rather than conventional sanding or stripping, resulting in **significant savings in ongoing maintenance costs and time**. **Cutek®** products are **resistant to surface mildew, mould and fungus**.

Bamboo needs the additional protection given by **CutekExtreme®**, which contains ingredients to specifically counter the darkening effect of the stain fungi to which bamboo is susceptible. If **CutekCD50®** or **CutekGreen®** are used on bamboo they will provide water repellence and dimensional stability, however these products alone will not prevent darkening of the bamboo.

Note: Bamboo coated with clear **CutekExtreme®** will eventually silver. To maintain the original colour of the bamboo for longer, we recommend using an appropriate colourtone. Refer to the Maintenance and Colourtone fact sheets for more information.

IMPORTANT: The use of other coatings and oils on bamboo will form a film on the surface. **CutekExtreme®** cannot be applied over another coating, as it works by penetration into the bamboo. If another product has been used to coat bamboo, it must first be completely removed (generally by sanding or stripping) before application of **CutekExtreme®**.