

# Bowens Installation Guidelines

## TREATED PINE SLEEPERS

From the outset let me say I am not saying this product should not be used, but I think it is important that potential end users should be made aware of how the product is produced and its possible shortcomings. With this in mind I refer you to my highlighted suggestions below, which are made to enhance the longevity and effectiveness of any structure involving Treated Pine Sleepers.

As it is, I have three major concerns with this product:

- 1 The tree centre is called the heartwood (about the first 8 to 10 years growth) where the cells are dead and will not accept the treatment that gives pine products durability. Where there is treatment penetration, it is where the wood has become sapwood and the cells are live (refer figure 1).
- 2 The heartwood or is often referred to as juvenile wood, is very fast growing and not very stable, often with a tendency to twist.
- 3 Again, because it is fast growing it generally lacks density and structural integrity. Accordingly Treated Pine Sleepers have no defined grade.

What sparked my renewed interest, resulting with this article, was brought about by the building extensions due to be undertaken at our Hallam premises.

The builder was setting up his construction offices by chocking them up by cutting up Treated Pine Sleepers.

The cut pieces used illustrated perfectly the lack of penetration I refer to above. I hasten to add there were some pieces where there was no penetration at all.

Even if the sleepers are not cut, it is usually not difficult to see the amount of penetration of preservative in each sleeper. The non-penetrated areas are light green in colour, whereas the areas that have been penetrated

are dark green in colour. At this stage I would like to point out that we at Bowens refer to the sleepers we sell as garden quality. Having said that, we all know they are commonly used in retaining wall situations.

The reason for this is that they are cheap and easy to install. It also should be noted retaining walls 1.2 metres or more in height require a building permit. It may even be necessary to engage the services of a structural engineer.

Having said the above, I point out some suggestions that will assist to preserve the life of structures where Treated Pine Sleepers are used:

- Try and retain the treated envelope of each Treated Pine Sleeper. This means do not cut ends or bore holes unless necessary and if so, apply a proprietary brand wood preserver to those cut ends or bored holed areas.
- Affix 200UM plastic to the inside wall of the structure before backfilling the soil or drainage screenings – this will hopefully act as a waterproof membrane.
- Ensure allowance is made for appropriate drainage so there is no build up of moisture, which will impact on the structural capability of the structure.

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