

Transforming nondurable timber into a lasting investment

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Types of less durable timber

A horizontal wooden plank with a light tan color and a fine, straight grain pattern, characteristic of rubber wood.

Rubber

A horizontal wooden plank with a warm, yellowish-brown color and a prominent, wavy grain pattern, characteristic of pine wood.

Pine

A close-up photograph of a wooden plank showing blue stain, which is a type of wood decay. The stain appears as dark, irregular patches on the lighter-colored wood grain.

Blue Stain

A close-up photograph of a light-colored wooden surface showing signs of insect attack. Several small, dark, circular holes are visible, along with two larger, irregular, light-colored areas that appear to be the result of insect activity.

Insect Attack

A close-up photograph of a piece of wood that has been severely damaged by decay fungus. The wood is dark, cracked, and crumbling. A yellow ruler is visible at the bottom of the image, showing measurements in inches.

Decay Fungus

A close-up photograph of a piece of wood that has been severely damaged by termite attack. The wood is dark, cracked, and crumbling. A large number of termites are visible on the surface of the wood, which is covered in a thick layer of termite mud.

Termite Attack

Hazard Class

| HAZARD CLASS | EXPOSURE | SPECIFIC SERVICE CONDITIONS | BIOLOGICAL HAZARD |
|--------------|---|--|--|
| H1 | Inside, above ground | Completely protected from the weather and well ventilated, and protected from termites | Lyctid borers |
| H2** | Inside, above ground | Protected from wetting. Nil leaching | Borers and termites |
| H3 | Outside, above ground | Subject to periodic moderate wetting and leaching | Moderate decay, borers and termites |
| H4 | Outside, in-ground | Subject to severe wetting and leaching | Severe decay, borers and termites |
| H5 | Outside, in-ground contact with or in fresh water | Subject to extreme wetting and leaching and/or where the critical use requires a higher degree of protection | Very severe decay, borers and termites |
| H6 | Marine waters | Subject to prolonged immersion in sea water | Marine wood borers and decay |

How can we
increase
durability of
wood?

Dip Diffusion

Pressure Impregnation

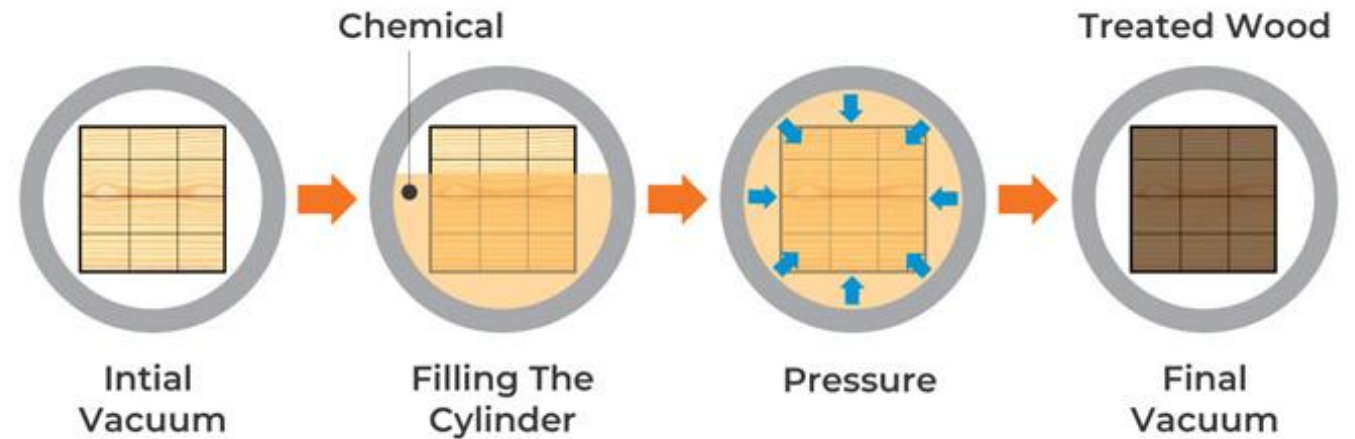


Vacuum Pressure Treatment

Initial Vacuum at -76Hmg

Pressure held at 200 PSI

Final Vacuum at -76Hmg



Chemical Types



Boron
Boron Borax



CCB
Copper Chrome Boron



ACQ
Alkaline Copper Quaternary

Boron Treatment – H1

Both pressure and Dip Diffusion

Effective against Bores Only

Not suitable for outdoor use

No color change

Commonly used for indoor furniture manufacturing





CCB – Copper Chrome Boron H1–H2

Can only be treated using Pressure Treatment.

Effective against Bores and small amount
Termites.

Leaves a green tint. Not suitable for long
term outdoor use

Leaves a green tint.

Not eco friendly



ACQ – Alkaline Copper Quaternary. H3 – H5



Can only be treated using Pressure Treatment.



Leaves a green tint.



Effective against Bores, Fungus and Termites.



Environmentally Friendly.



Green Building Certified.

Checking Penetration By spot test

Boron test A&B solution



CCB/ACQ Chrome Azurol



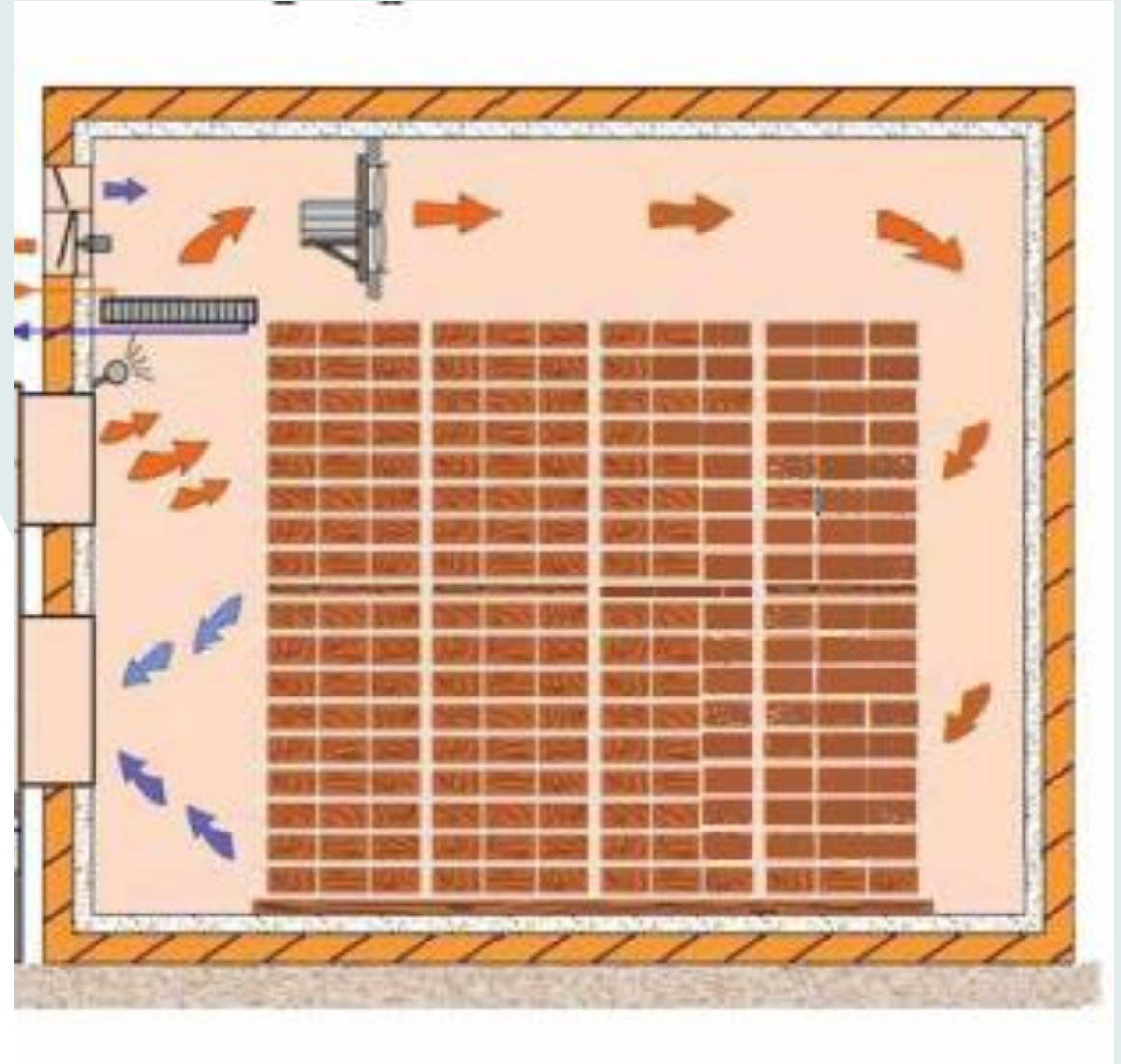


Wood Drying

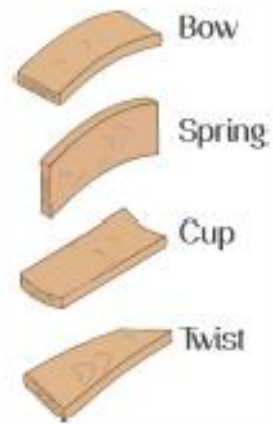
Commonly Practiced Method.

The duration for the process of kiln drying varies with the thickness of the wood and the species.

Duration 8-12 days



Key advantages of drying Wood



Without Kiln Drying



With kiln Drying

To bring down moisture levels to "work-able" range efficiently workable range is a level that will not end in the myriad of problems that can be caused by excess moisture content wood.



Key advantages of treated wood

Cost Efficient

Long Lasting

Availability

Sustainable

Applications of Treated timber



Wood Buildings





Treated wood for a sustainable
Future

