



Treated Timber Product Knowledge



Wrs Ifv#iru#Discussion



- Why we treat
- Timber applications and the Hazard Class system
- Treatment results
- Preservatives
- The vacuum/pressure process)

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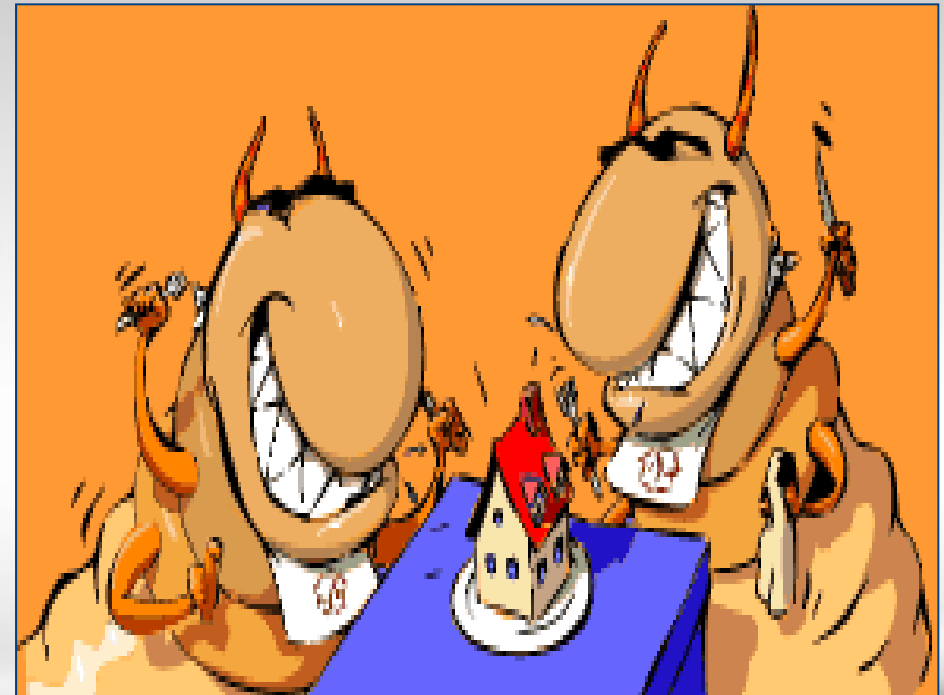
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- To increase the service life of non durable timber species and make them more resistant to attack by it's natural enemies ie. protection from decay fungi and wood boring insects
- And increase the applications for which timber can be used



Hazard Class System



- Cornerstone of preservation industry
- All timber going through a treatment plant is aimed at meeting a particular Hazard Class

Hazard Class 1



- Above ground
- Protected from moisture
- Borer
- Not termites
- House framing
- Flooring
- Furniture
- Joinery



Hazard Class 2



- Above ground
- Protected from moisture
- Borer
- **Termites**
- House framing
- Flooring
- Furniture
- Joinery



Hazard Class 3



- Above ground
- Exposed to weather
- Weatherboards
- Pergolas
- Decking



Hazard Class 4



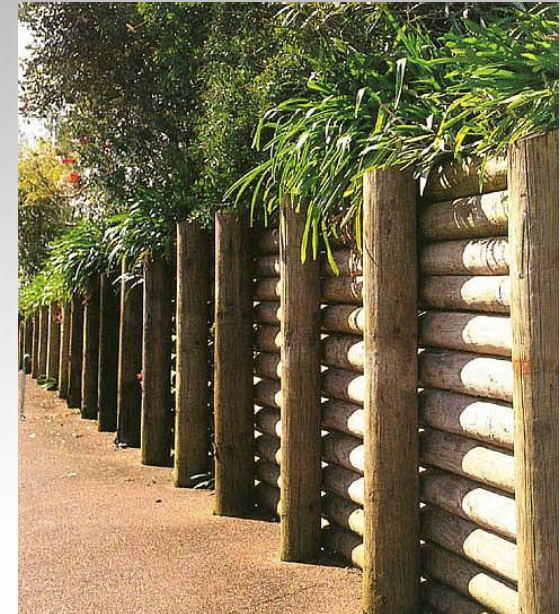
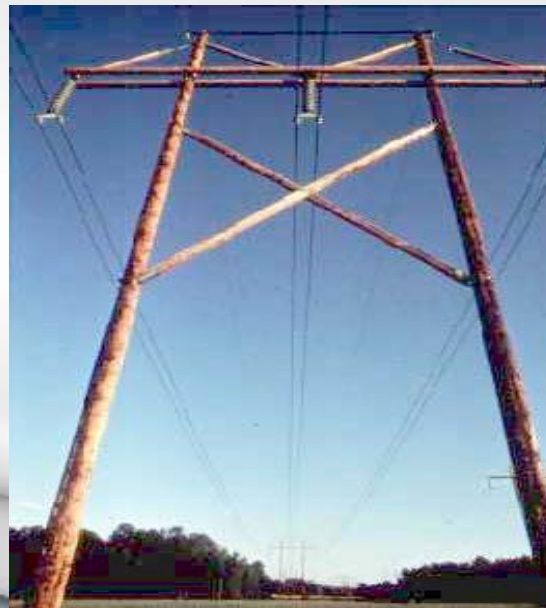
- In ground
- Fence posts
- Pergolas (in ground)
- Landscaping
- Vineyard posts



Hazard Class 5



- In ground
- Critical use
- Retaining walls
- Piling
- Poles



Hazard Class 6



- Seawater Immersion
- Marine piles
- Jetty cross-bracing
- Landing steps



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Hazard classes relate directly to end-use application

- Chosen to suit biological hazard
 - ie Protection from borers only or borers and fungi

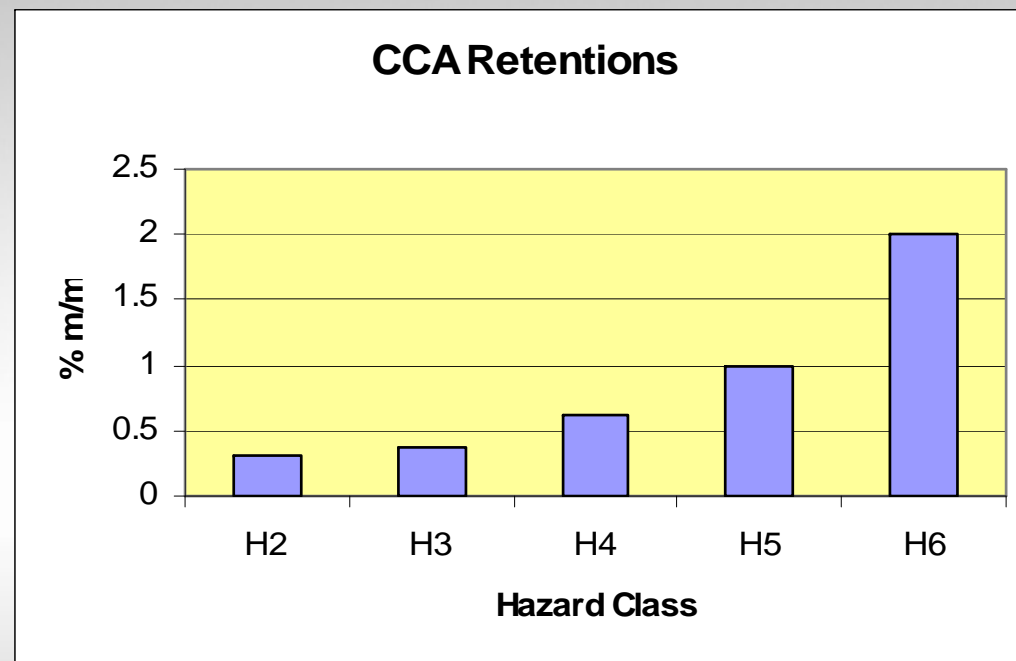
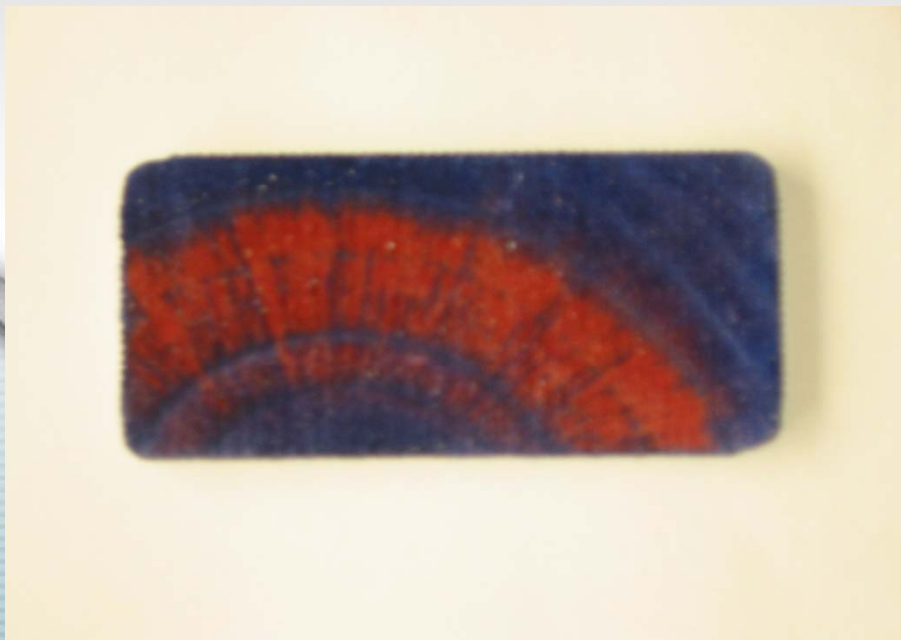
- Chosen to suit exposure conditions
 - ie Internal, external, above ground, in-ground, marine

Insects attack ONLY		Insect attack & Fungal decay			
Internal - DRY		External - WET			
H1	H2	H3	H4	H5	H6
Boron	Boron				
P'shield	P'shield				
	Blockade				
LOSP	LOSP	LOSP			
TTQ	TTQ	TTQ	TTQ	TTQ	
CCA	CCA	CCA	CCA	CCA	CCA
Dip Salt	Dip Salts				
Above ground		Below ground		Marine	

Treatment Results



- Penetration
- Retention



Preservatives



Three main types:

- **Waterborne** – Chemicals that mix with water.
 - CCA, TTQ, Boron, Permashield & Blockade
- **Light Organic Solvent Preservatives (LOSP)** – Chemicals that are mixed with a solvent such as white spirits
 - H2 (Permethrin), H3 (Permethrin and TBTN or Azoles)
- **Oilborne**
 - Creosote, PEC.

FFD



- Long documented history
- In a changing environment, it is rare to find a product or technology that has remained more or less unchanged for more than 70 years
- Recent History
 - US - Industry decision to move to alternatives Jan 2004
 - Canada - followed US lead
 - Europe - EU "Mktg & Use Directive" banned CCA commencing July 2004



FFD



- Recent History
 - Japan - Phase out of CCA commenced early to mid 1990's
 - NZ – No restrictions
 - Aust - March 06, APVMA review restricted applications in 4 areas
 - Playground equipment
 - BBQ Tables
 - Hand Rails
 - Domestic decking



Changing!



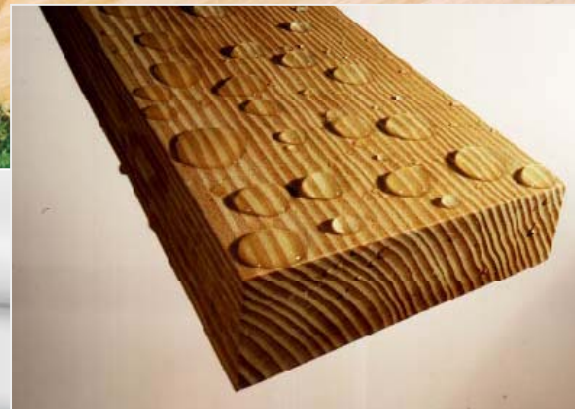
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CCA alternative

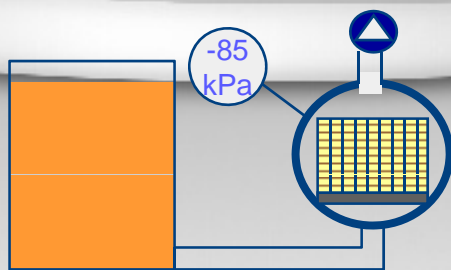
- CCA-alternative offering similar level of protection
- Water-based
- Combination of Copper + DDAC
- H1 - H5
- 50 year limited guarantee
- Used in Australia for 12 year
- Specified by National Parks & Local Councils etc



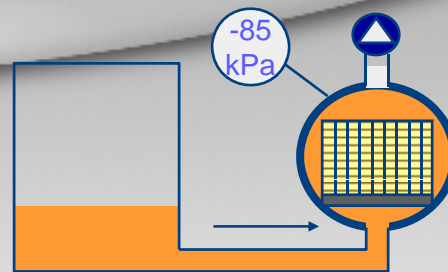
Vacuum Pressure Impregnation



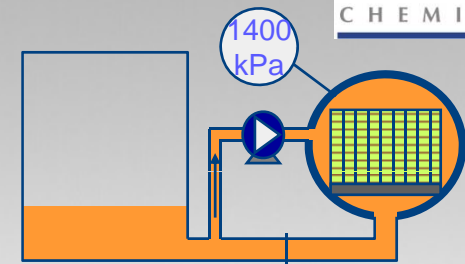
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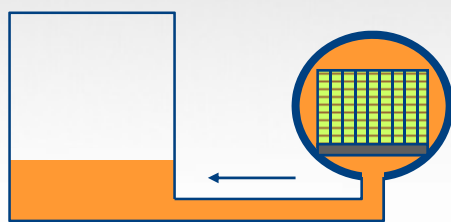
Initial Vacuum



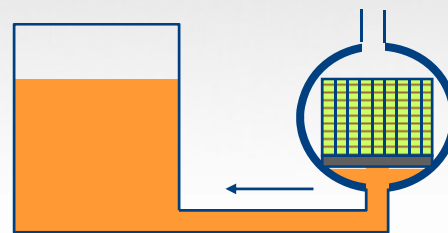
Flood



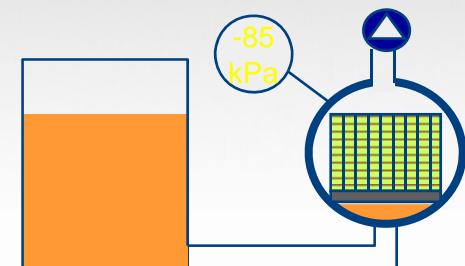
Pressure Rise



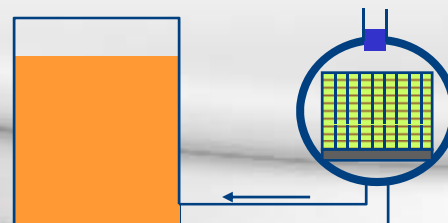
Pressure Release



Blow/Pump Back



Final Vacuum



Final Blow/Pump Back

THE GUIDE TO WORKING SAFELY WITH TREATED TIMBER



WEAR

- *Gloves*
- *Goggles*
- *Mask*

DON'T

- *Burn it*
- *Cook with it*
- *Use it for animal litter*

DO

- *Wash work clothes separately*
- *Dispose of waste in an approved landfill*



Always wear dust mask and goggles



Always wear gloves when working with treated wood



Wash work clothes separately



Dispose of waste in an approved landfill



Do not burn treated wood



Do not use treated wood to cook food



Do not use treated wood shavings or sawdust as animal litter



Treated wood should not come into contact with drinking water



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Thank You

