durability

Sliding Sash Solutions
England & Wales

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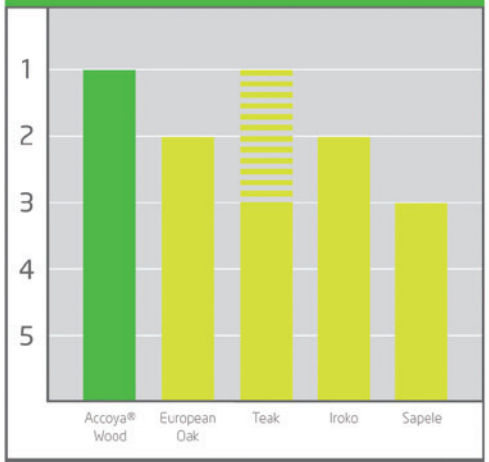
Accoya® wood's durability (rot resistance) is Class 1, matching and even exceeding the performance of nature's most durable woods such as Oak, Teak, Iroko and Sapele. Every batch of Accoya® wood is tested after production to ensure that its durability can be guaranteed.

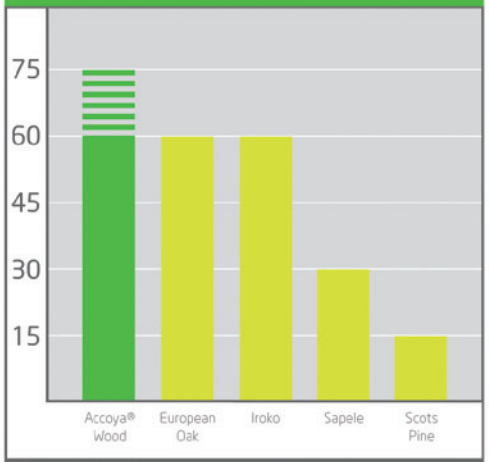
durability comparison



EN350-2. Classification Tests: EN113, EN252, ENV807 – Range caused by variability of species or difference between Heartwood and Sapwood

denotes potential durability

life expectancy (years)



Based on BSEN 8417

denotes potential expectancy

sheet piling

Acetylated Poplar *

Unmodified Wood

After 10 years in fresh water

the Accoya® advantage

- joinery that will stand the test of time and not require replacement for at least 60 years**
- use in demanding external applications, even in fresh water
- beauty, elegance and style – natural or coated

* Accoya® wood is made using a modification process called acetylation

** In use classes 1, 2 and 3 as defined in EN335-1

the world's leading high technology wood

environmental credentials

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SLIDING SASH SOLUTIONS

accoya®

By significantly enhancing the durability and dimensional stability of fast growing, abundantly available certified wood species, Accoya® wood provides compelling environmental advantages over scarce slow growing hardwoods, woods treated with toxic chemicals, and non-renewable carbon-intensive materials such as plastics, steel and concrete. In comparing Accoya® with other materials, it is necessary to take the full life cycle into account, from 'cradle to grave'.

to find out more visit
www.accoya.com/sustainablity

CO_2 neutral over the full life cycle, from cradle to cradle

Production phase

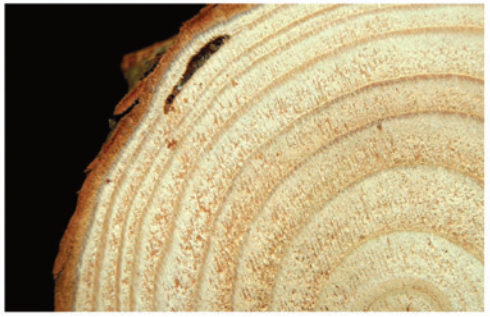
- EUTR compliant: Made from legally harvested wood from well managed sustainable sources including FSC, PEFC and other regionally certified woods.
- Only abundantly available, and often fast growing source species such as Radiata pine, are used to create Accoya.
- The Accoya wood manufacturing process adds nothing to the wood that does not already naturally occur in it.
- The Accoya production facility meets highest requirements with respect to health, safety and the environment and powered for over 50% by renewable energy.

Use phase

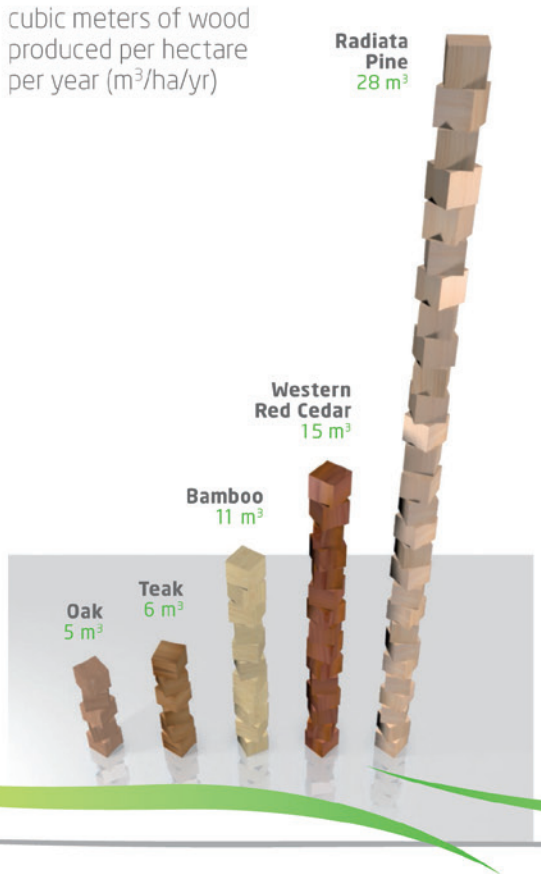
- CO_2 negative over the full life cycle; therefore an environmental friendly substitute for tropical hardwood and materials from non renewable resources.
- Enhanced durability, facilitating a longer lifespan, improved carbon sequestration potential and lower lifetime material consumption versus other materials.
- Outstanding dimensional stability and improved hardness results in lower maintenance frequency (lower costs) and therefore less coating use and waste over the product's lifetime.
- Superior thermal insulation, which provides energy conservation advantages when used in applications such as window frames and doors.

End-of-life phase

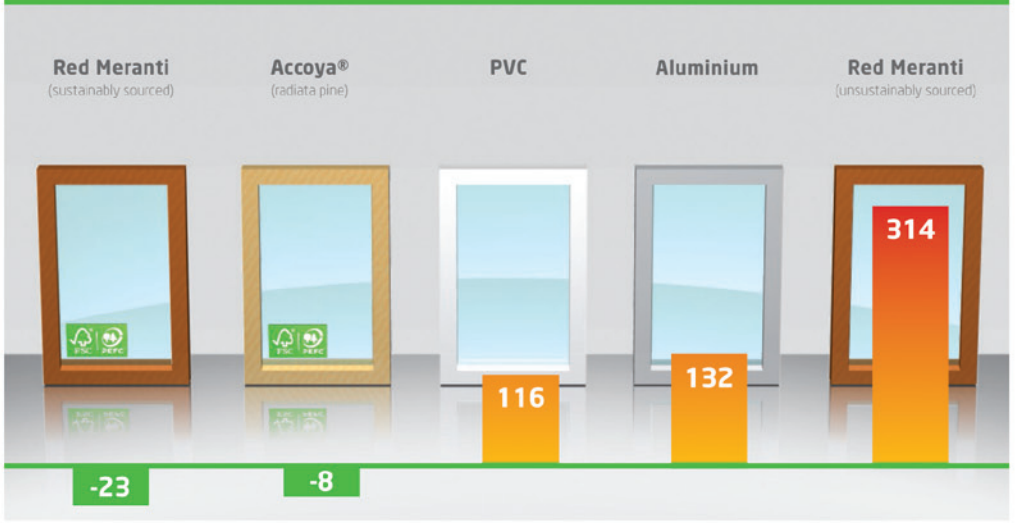
- Accoya wood is fully reusable and recyclable. Reuse is recommended but Accoya may be safely incinerated for bio-energy or composted to close the loop of the carbon cycle. Waste wood from the production process is recycled to produce acetylated MDF Tricoya, further increasing the carbon sink effect of wood.
- In the Cradle to Cradle® philosophy, for which it holds the prestiguous Gold-level certification, Accoya wood is understood to be non-toxic and 100% biodegradable.



annual yield comparison



cradle to grave carbon footprint comparison (window frames)



Greenhouse gas emissions (cradle to gate) in kg CO_2 eq per window frame in various material alternatives

ecolabels

FSC
www.fsc.org
FSC® C012330
The mark of responsible forestry

PEFC
PEFC/30-31-040
www.pefc.org

CERTIFIED cradletocradle GOLD

GreenLabel SINGAPORE

- In a cradle to grave carbon footprint assessment, greenhouse gas emissions during the life cycle of a product / material can be measured, numbers provided in kg CO2 equivalent.
- Includes end of life scenario (recycling, dump or incineration for energy) and carbon sequestration effect of wood according to PAS 2050:2011 guidelines over a 100 year time frame.
- Source: Vogtländer, J.G. (2013). Cradle to Grave Carbon Footprint Assessment for Accoya® Wood and its applications Part 1: Window Frame. Delft University of Technology. Publicly available through http://www.accoya.com/downloads
- Annual yield of renewable materials is not included in a carbon footprint assessment and can be perceived as an additional environmental credential for slow growing, limited available certified tropical hardwood, but especially for Accoya® based on fast growing certified sources.

dimensional stability

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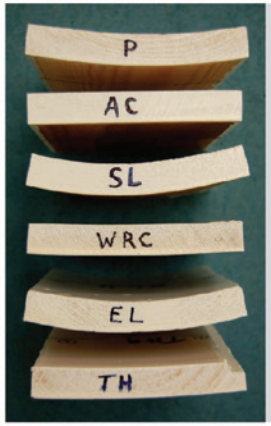
Accoya® wood's superior dimensional stability (resistance to swelling and shrinkage) exceeds all commonly used species, including Teak, Sapele and Iroko.

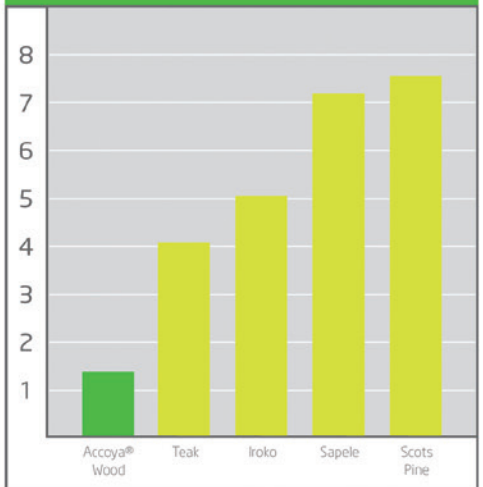
TRADA trial results

Accoya® wood was the only wood that did not cup in this TRADA** trial on wooden cladding.



Pine
Accoya® Wood
Siberian Larch
Western Red Cedar
European Larch
Thermowood

tangential shrinkage* (%)

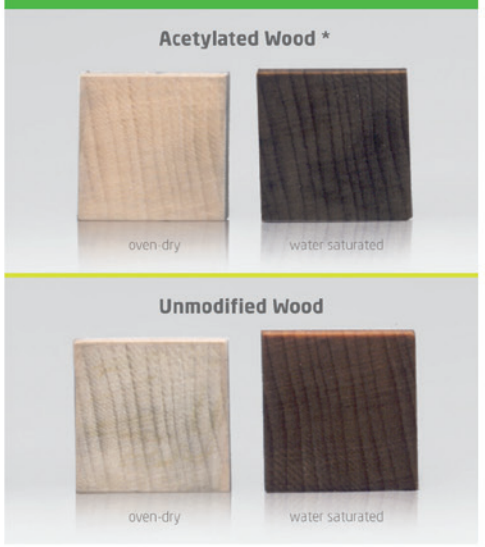


* typical tangential shrinkage from fully soaked to oven dry - the most extreme laboratory test.

extreme conditions

Accoya® wood has been tested over prolonged periods in all types of weathering conditions - above ground, below ground and even in water - and has been proven to withstand even the toughest of external environments.

reduced swelling



the Accoya® advantage

- reduced swelling and risk of jamming in humid conditions
- better fitting windows and doors in all weathers
- less frequent coatings maintenance

* Accoya® wood is made using a modification process called acetylation

** Timber Research and Development Association www.trada.co.uk

the world's leading high technology wood

coatings performance

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Accoya® wood has shown improved coating lifetime performance with many types of coatings, resulting in extended maintenance intervals. The light colour of Accoya® wood allows for a wide range of colour finishes.

coating comparison after 13 years of outdoor exposure

Translucent WB Acrylic Coating

Acetylated Wood * | Unmodified Wood

Opaque WB Acrylic Coating

Acetylated Wood * | Unmodified Wood

Swelling and shrinkage of wood is reduced by 70-80%. Paints and other film-forming coatings are not therefore subjected to such severe stretch and shrink cycles, thus reducing maintenance frequency.

Accoya® wood's superior resistance to UV degradation improves the life of any coating by providing a sound substrate.

the Accoya® advantage

- Potential for less frequent coatings maintenance
- Cost savings during the life of the product
- Environmental benefits during the life of the product
- Wider range of colour and coatings options

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the world's leading high technology wood