COSTAA®

Heal the world!

PINE
WOOD PALLETS

WORKING THE SUSTAINABLE WAY

www.costaawoods.com

About Us

COSTAA®
Heal the world!

Yesterday : 1970 – The journey began with Sri Shanker Lalji Kedia, who founded this company in Kolkata in the name of Hindustan Timber Traders.

Today : COSTAA is now a Pan-India business conglomerate, from Arunachal Pradesh in the east to Gujarat in the west. It has multiple manufacturing units and a Company that builds Sports Infrastructure.

Today : We have a Pan-India presence with our Dealers / Distributors and Stockiest. New Dealership Enquiries are Solicited.

Vision - Life is Better Together

As a diversified wood business conglomerate, we strive to grow & excel as a team, involving all our Business Associates, Partners and Employees in the frame!

Presence - The Silent Partners

In the last 4 decades, COSTAA has silently & consistently partnered as vendors with some of India's leading brands. Our products & services have always been present in your vicinity, even if our name wasn't!

Values - Excellence is a Responsibility

1. A team-centric framework, built on collective motivation.

2. A quality driven work ethic to create and deliver maximum value.

3. Technology friendly infrastructure, to improve techniques & ensure minimal wastage.

4. Sourcing of wood globally from Sustainable Resources only.

5. Ensuring the safety and well-being of the skilled and unskilled workforce engaged in the production processes.

Our Certifications

FSC
www.fsc.org
FSC® C128790
The mark of responsible forestry

GB-FC0080
DB-HT

CERTIFIED ISO 9001:2008 COMPANY

Nz Radiata Pine

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Radiata pine heartwood is an even, light brown to chestnut brown colour, the sapwood is creamy white. Resin canals are present as fine brown lines in the latewood part of the growth rings, especially on radial surfaces, and these can be a handy means of identification. Texture is fine but uneven.

The contrast in colour and texture between early and latewood bands (growth rings) in flat-sawn timber is relatively moderate compared with other pines and conifer species. The veneer has a moderate-to-high lustre. Common features in most Pinus species, including radiata pine, are: knots, cone stem holes and pine-needle flecks. Radiata pine is a versatile and readily available timber, suitable for a wide variety of end-use applications. It produces wood that is very acceptable to the construction industry. The bark is rich in tannins and suitable for use in the manufacture of adhesives; it also contains some wax, which may have possible use in water repellents. It is suitable for framing, industrial uses, posts, cladding, decking, interior finishes and trims, and everyday furniture. Radiata does not begin to form heartwood until it is about 15 years old and forms it at the rate of one ring every two years. Most of the wood, therefore, is easy-to-dry and easy-to-treat sapwood. This is an advantage over many Northern Hemisphere conifers, which are largely heartwood.

Mechanical Properties

Mechanical properties vary with density, and the presence of knots, sloping grain and other natural features. For timber free of these natural features (clear wood), of average density, from trees felled at 30 years of age and the average properties measured on small specimens (20 x 20mm cross section) are:

Modulus of elasticity : 8.23 GPa
Bending strength : 85.8 MPa
Compression strength parallel to the grain :36.8 MPa
Side hardness (refers to indentation) :3.64 kN
Shear strength parallel to the grain : 11.6 MPa
End hardness : 4.76 kN

American Southern Yellow Pine

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Southern Pine grows in a wide geographic belt, stretching from East Texas through Virginia. The name Southern Pine, or Southern Yellow Pine, is representative of a group of four principal tree species: longleaf, shortleaf, loblolly, and slash. Lumber from all four species is marketed as Southern Pine and graded in accordance with the grading rules of the Southern Pine Inspection Bureau (SPIB), approved by the American Lumber Standard Committee (ALSC). The natural characteristics that distinguish Southern Pine as a most versatile building material are:

High Strength

Design values assigned for Southern Pine are among the highest of all softwoods. Southern Pine has earned a reputation as the "Supreme Structural Wood of the World.

Durability

Southern Pine is highly resistant to wear. It is ideally suited for high-traffic applications such as boardwalks, decks, and flooring.

Seasoning

Southern Pine grading rules restrict moisture content of lumber 50mm (2") or less in thickness to a maximum of 19%. If specified as "KD" or "KD19", the maximum is 19%. If specified as "KD15", the maximum is 15%. Moisture content restrictions apply at the time of shipment to the buyer, as well as at the time of dressing if dressed lumber is involved. Material identified by a certified grade mark is evidence that the Southern Pine lumber has been properly seasoned, and considered sterilized by most importing countries.

Fastener Holding

Southern Pine's ability to hold nails and other fasteners is among the highest of all softwoods. Drying or seasoning, Southern Yellow Pine Lumber enhances fastener holding capabilities.

Treat-ability

Southern Pine has long been a preferred species when pressure treatment with preservatives is required. The unique cellular structure of Southern Pine permits deep, uniform penetration of preservatives, rendering the wood

German Sylvestris Pine

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The basic properties of spruce and pine are similar in, for example, the long fibers and strength in relation to weight. Differences come up in cell structure: the cell wall in pine sapwood does not close completely, enabling fluid to move freely. This makes chemical treatments like impregnation of pine sapwood possible.

In the heartwood of spruce and pine, the cell wall closes completely and it blocks or complicates movement of fluid. Due to lesser water absorption, spruce and pine heartwood have good weathering resistance in comparison to pine sapwood.

Strength Comparison

The strength properties of pine are slightly better than those of spruce. The table below shows the most important values of different strength properties (in 15 % moisture content):

Pine (Pinus Silvestris)Spruce (Picea Abies)
Density (kg/m3)480440
Tensile strength (N/mm2)10090
Bending strength (N/mm2)10075Compression strength (N/mm2) Parallel to grain5550Perpendicular to grain7.55.5Modulus of elasticity (N/mm2)1180010500

Visual Quality

The reddish colour of pine heartwood distinguishes it from the lighter pine sapwood. In spruce, there are no colour differences between the sapwood and heartwood. The knots are smaller in spruce than in pine, but the amount of knots in spruce is greater; knotless spruce timber is rare.

Applications

Packaging industry, Construction beams, Block boards, Flush door fillers beams, Roofs, Walls in cold regions and Packaging.

Meghalaya Pine

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Meghalaya pine heartwood is an even, light brown to chestnut brown colour, the sapwood is creamy white. Resin canals are present as fine brown lines in the latewood part of the growth rings, especially on radial surfaces, and these can be a handy means of identification. Texture is fine but uneven.

The contrast in colour and texture between early and latewood bands (growth rings) in flat-sawn timber is relatively moderate compared with other pines and conifer species. The veneer has a moderate-to-high lustre. Common features in most Pinus species, including Meghalaya pine, are: knots, cone stem holes and pine-needle flecks. Meghalaya pine is a versatile and readily available timber, suitable for a wide variety of end-use applications. It produces wood that is very acceptable to the construction industry. The bark is rich in tannins and suitable for use in the manufacture of adhesives; it also contains some wax, which may have possible use in water repellents. It is suitable for framing, industrial uses, posts, cladding, decking, interior finishes and trims, and everyday furniture. Meghalaya does not begin to form heartwood until it is about 15 years old and forms it at the rate of one ring every two years. Most of the wood, therefore, is easy-to-dry and easy-to-treat sapwood. This is an advantage over many Northern Hemisphere conifers, which are largely heartwood.

Mechanical Properties

At 12 percent moisture content, the density of Meghalaya pine varies from 560 kg/m3 from low-altitude growth sites from the Waikato northwards, to 460 kg/m3 in timber supplied from Otago and Southland. The average density figure for the whole country is 500 kg/m3.

Modulus of elasticity : 8.23 GPa
Bending strength : 85.8 MPa
Compression strength parallel to the grain :36.8 MPa
Side hardness (refers to indentation) :3.64 KN
Shear strength parallel to the grain : 11.6 MPa
End hardness : 4.76 kN

Pine Wood Pallet

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Manufacturing heavy duty wooden pallets of both softwood and Hardwood Chemically treated & mechanically seasoned, capacity to accept huge load, long lasting and suitable to load heavy components. We are excelling in the domain by making available finest Pine Wooden Pallets which are one of the most used packaging materials in industries, major reasons being Sustainability, Availability.

Our company self-imports premium grade raw materials like American Southern Yellow Pine & Radiata Pine from NZ. The products are manufactured in accordance with the international quality standards for exports for which we have in house facilities for.

1. Seasoning chambers for wood planks.
2. Heat treatment facility as per ISPM-15.
3. Methyle Bromide Fumigation (By outer agency).

Features

Light in weight
High strength
Durable
Long Lasting
Superior Workability

Properties

Bio Degradable
More Sustainable
High Thermal Resistance.
High load bearing Capacity.
Resistance to Microbial attack.
No discoloration of colour after long duration attack.

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Type of Wooden Pallets

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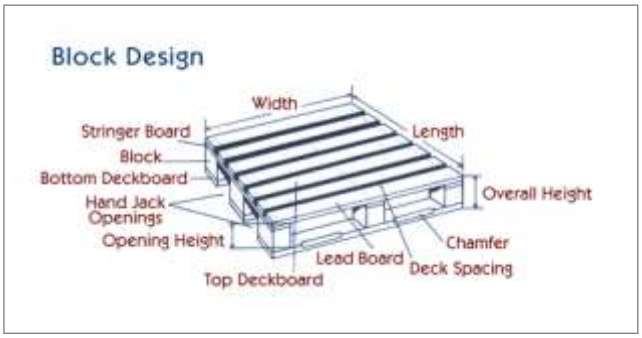
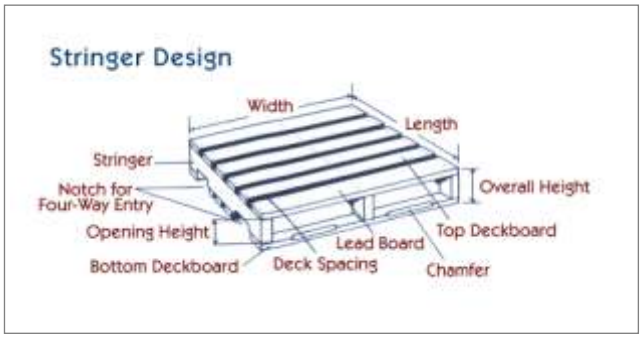
There are two different pallet designs; the block design and stringer design. The block design utilises cylindrical posts, which separate the top deck from the bottom deck. Block pallets utilise both parallel and perpendicular stringers to better facilitate efficient handling. The stringer design utilises runners – wood components that run the full length of the pallet. The top deck is fastened to the top edge of the stringers.





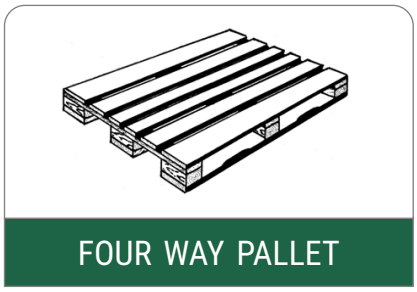
Types of Pallet

SINGLE DECK PALLET

DOUBLE DECK PALLET

REVERSIBLE PALLET

NON-REVERSIBLE PALLET



FOUR WAY PALLET

TWO WAY PALLET

Wood vs Plastic Pallets

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BASIS	WOOD	PLASTIC
Weight	Standard 48x40 wood pallets can handle loads +/- 1500 to 3000 lbs.	Standard 48x40 plastic pallets are best for loads <1500 lbs.
Ascetics	Gives a natural warm feel	Very cosmetic and unpleasing to eyes
Durability	ISPM 15 Certification required	ISPM 15 Certification not required
Moisture	Pallets made from Kiln Dried planks have no issues	X
Bugs/Fungus	Pallets treated with heat treatment as per ISPM 15 have no issues	X
Prevalence	80-85% of Pallets used are wood	Plastic makes up less than 10%
Cost	Overall up to 3x lower per unit	Overall up to 3x higher per unit
Recyclable	99% Recyclable; both as pallets and other wood products	Highly Unlikely
Repairable	Very Repairable	X
Environmental Impact	Sustainable resource, easily repaired and recycled, biodegradable	Not biodegradable
Availability	Procured from sustainable forest produce	Available at a high cost
Design Flexibility	Highly flexible	X

Considerations For Pallet Selection

BASIS	
Industry and Products	Preferable to follow industry norms on selection of pallets. 80-85% wood pallets are used.
Product Weight	Wood Pallets should be used for anything above 680 kilos.(approx.)
Sensitivity	Depending on the product the Pallet should be considered.
Export Oriented	Exporting, Wooden Pallets are the way to go even after meeting export compliance rules it will be cheaper than plastic

Wood vs Plastic Pallets

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Considerations For Pallet Selection

BASIS	
Economics - Cost	If cost of Pallet is most urgent consideration then Wooden Pallets is the right choice
Customized Pallets	It is difficult and cost prohibitive to get Plastic Pallets in custom sizes and extra features, Wood makes customization simple and cost effective.
Supply Chain Carbon footprint	Not only does wood offer a smaller, or even negative carbon footprint, but wood is also eco-friendly and sustainable option. Plastics are made from high density polyethylene which is petroleum or natural gas.

Industrial use of Wooden Pallets

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Almost every type of industry that ships and receives goods has a use for pallets. Common examples include:

- Manufacturing industries (for car parts, aircraft parts, furniture, etc)
- Assembling industries (assembling the car, aircraft, etc)
- Pharmaceutical industries
- Food and beverage industries
- Construction industries

Why do these industries use Wooden Pallets?

The wooden pallets usage are cost-effective, recyclable, and perfect for transporting heavier items. Products that are transported on these also slide around less, due to the rougher surface of the wood. Wooden pallets can be used to transport both heavy or fragile items, such as machinery parts or wine bottles.

Fsc & **ISPM** Certified Products

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FSC
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FSC® C128790

The mark of
responsible forestry

Certificate of Approval of Forced Hot Air Treatment Facility

Government of India
Ministry of Agriculture & Farmers' Welfare
(Department of Agriculture Cooperation & Farmers' Welfare)
Directorate of Plant Protection, Quarantine & Storage
N.H-IV., Faridabad-121001

Certificate Number: 583/2020	**Date of Issue :** .04.2020 **Valid up to :** .04.2022

This is to certify that the Forced Hot Air Treatment Facility as described below has been inspected and certified for treatment of solid wood packaging material for export after conducting satisfactory performance test and that the firm is authorized to mark the treated packing material as per the code number & mark assigned.

(Rajesh Malik)
Plant Protection Adviser

Name of FHAT Facility & Address	M/s. Deekay Impex 338, Bhahau, Anjar Road, Vill-Bhimasar, Tal-Anjar, Gandhidham, Kutch, Gujarat-370 240.
Capacity of the facility	400 Pallets (Size 4'L X 4'W X 0.33'H = 5.3 CFT)
Code Number Assigned to the Facility	IN- 583HT
Terms & Conditions: 1. The Certificate should be displayed at prominent place and available for verification during	

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THANK YOU.

Contact Us

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