a natural resource

Not only is timber a renewable natural resource, but using it in preference to less environmentally-friendly materials results in a significant saving of carbon dioxide that would otherwise be released into the atmosphere.

Every year over 1.5 billion pallets are produced worldwide, using approximately 60 million cubic metres of timber. In Europe we produce around 350 million pallets and packing cases, using almost 20 million cubic metres of timber.

The scale of this business can be appreciated in the context of a total European production of around 100 million cubic metres of sawn timber.

pallets

- Pallets are designed and constructed to transport goods of all values and contribute to economic transportation
- They are made from unseasoned or ‘green’ timber
- Anti-stain treatments are available
- Pallets can be kiln-dried, or made from kiln-dried timber to minimize staining and provide higher performance
- Timber with a moisture content of, for example 18-22% or lower, will result in better strength, reducing weight and transport costs
- New phytosanitary requirements (ISPM15) require heat treatment of 56ºC for 30 minutes.

packing cases

- These are manufactured mainly from European softwood
- Kiln-dried timber, i.e. with a moisture content of 18-22%, provides quality components and is stronger than unseasoned wood
- Plywood is an alternative solution often used for its high strength-to-weight ratios
- OSB (oriented strand board) has similar properties to plywood
- Chipboard has good strength but doesn’t withstand moisture without loss of strength.
timber - the responsible choice

Timber is naturally renewable
- Trees absorb CO₂ as they grow, producing the oxygen we breathe.

European timber is sustainable
- Increasing quantities are covered by certification schemes, like FSC and PEFC

Using timber helps reduce Climate Change
- When you choose timber you save CO₂ that would otherwise be contributing to the build up of greenhouse gases
- Through substitution for a less environmentally-friendly material
- And through keeping the CO₂ locked up in the product.

Timber pallets and packing can be recycled
- Extending the carbon sink effect of the timber.

Waste timber can be used for energy recovery
- Burning waste timber for energy as a substitute for fossil fuels is highly CO₂ efficient.

• European forest cover is growing faster than it is harvested; annually by an area the size of Cyprus¹

¹ UNECE/FAO MCPFE 'State of Europe's Forests 2003'.
anti-stain treatment

This is best performed as soon as possible after the timber has been sawn from the log. Anti-stain treatment is achieved by dipping, spraying or deluging the timber with a waterborne formulation based on bio-degradable ingredients.

It ensures effective protection against surface mould and sapstain fungi, caused by the chemical reactions of sugars and nutrients that exist naturally in the timber.

Protection is designed to last throughout the seasoning, storage and transport of the timber, with a typical period of effectiveness of approximately three months. It also ensures that the timber remains attractive visually.

Anti-stain treated timber can receive subsequent treatment with another wood preservative before product manufacture. Anibi Select™ can be supplied by Arch Timber Protection www.arctp.com and Celprite from Osmose Ltd www.osmose.co.uk. Sinesto B can be obtained from BASF, Wolman Division www.basf.com.

key facts

• Internationally agreed standards for wooden packaging (ISPM15) help to protect and encourage the safe use of timber packaging worldwide

• In Europe we produce around 350 million timber pallets and packing cases annually

• As timber pallets and packing cases are more environmentally friendly, they result in a significant saving of carbon dioxide that would otherwise be released into the atmosphere

• Timber pallets and packing cases are repairable and bio-degradable

• Pallets and cases which are beyond repair can be shredded to provide high quality wood chips for the panel industry, or can be used in animal bedding, or as a fuel

• Timber is naturally renewable. Europe’s forests are growing by an area roughly the size of Cyprus annually\(^1\)

• Wood is hygienic to use; properly maintained, wood provides poor living conditions for bacteria

• Studies show that, within the food industry, wooden pallets have a lower microbiological load than plastic

• Wooden pallets and packaging can be repaired, maintained and re-cycled, providing businesses with cost-effective transportation and storage solutions

• Today’s timber treatment processes further enhance the quality and life span of timber packaging products.

For more information visit www.wood-food.com

\(^1\) State of Europe’s Forests, 2003. MCPFE/UNECE FAO

pallet pools

There are a number of pallet types used within Europe. See EN 13698 part 1 (800x1200mm) and part 2 (1000x1200mm) for specifications.

Free exchange pools, like EPAL, an independent organisation providing the European standard specification controlling over 300 million 800x1200 pallets regulates manufacture and repair.

Self managed pools:
• The pallet user is responsible for pallet specification, ownership, return, replenishment and maintenance.

Third party managed pools:
• The user passes responsibility to a third party who manages the whole process on his behalf (this method is popular in the USA).

Third party owned pools:
• Where the user rents the pallets, transferring the responsibility to the next user. This is more complex to administer and pallet loss is expensive, although pallet quality can be improved.

World-wide there are a number of other pools; for example CHEP, LPR and Logipal. And some of the larger companies, like Volvo, have their own systems, indicative of the importance attached to wooden packaging.

for more information