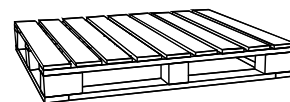


PalletLink Newsletter

technical support for the pallet and case manufacturer & user



Spring 2007

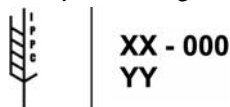
Tel: 01494 558282 Fax: 01494 558383

mail@palletlink.co.uk

palletlink.co.uk

CHANGE FOR THE UK ISPM LOGO

The Forestry Commission has announced that it is no longer mandatory for registrants of the UK ISPM Wood Marking Programme to include the Forestry Commission name and logo on their mark, though they may continue to do so if they wish. There has been some opposition from other countries, particularly China, to any mark not *exactly* following the international model shown in ISPM 15 and some of our members have had difficulties in acceptance at Chinese ports. National Plant Protection Organisations have the final say as to what they will accept so there may be occasional problems.



The Forestry Commission, however, has always accepted imported wood packing material with additional marks as long as the mandatory information is marked. This is following ISPM 15 which says: *Other information may also be included provided it is not confusing, misleading, or deceptive.*

WOOD PALLETS FOR FOODSTUFFS

The largest market for pallets is the food industry and there was concern when prEN 15593: 2006: *Management of hygiene in the production of packaging for foodstuffs – Requirements* was first proposed by CEN that this might have been another attack on timber pallets. The commercial predecessor had been drafted by the BRC (British Retail Consortium) and may not have been sympathetic to timber pallets but we have been monitoring prEN 15593 through each meeting since the start in 2003 and what has helped was the strong continental influence with its view that the timber Europallet is an essential in the continental food industry and must continue. We are nearing publication and the requirement that is likely to become final is - *Pallets shall be inspected before use. They shall be suitable for use with the intended products and clean, free from foreign bodies, uncharacteristic odours and pests. Pallets shall not contaminate raw materials, work in progress and finished products.*

TWO NEW EUROPALLETS

To add to the two Euros already available the 800 x 1200 and the newer half-pallet 600 x 800, EPAL have announced two more to bring their total to four. A new design feature is that both pallets have butted leading boards, a 1000 x 1200 open-base skid type of a design similar to the old Euro and for the first time, a full-perimeter base 1200 x 1000mm.



The species permitted have not changed with poplar still banned for stringers. However, we note EPAL have still not reacted to the wider commercial use of certain weak hardwoods so the pallet strengths customers receive will vary a great deal. The

choice of species will matter more with the new 1000 x 1200 open-base skid type which relies on 3 stringers in its short direction for strength with no support from the base.

EPAL EXTENDS TO DENMARK

For some years there has been friction between Denmark which has always used their National Railway to control the quality and markings on their Europallets, and users of EPAL marked pallets. PalletLink has more than once had the question put to them as to why some Danish customers would not accept EPAL Europallets. Reciprocal agreements were meant to be in place, but it sometimes did not work particularly with Germany 'next door' which has long been in the EPAL scheme. Over the years Denmark still stuck to their National Railway scheme (as did all European countries until the early 1990s). However, some years ago that it was recognised by shippers of goods across Europe that the only Europallet that would move freely across Europe was a pallet marked EPAL EUR, plus the maker/licensee's registration number and the country of origin. So when Latvia, Belarus, Poland, Slovenia, Slovakia and Turkey all joined the EPAL system Denmark found increasing problems of acceptance and finally joined EPAL in January this year.

TIMBER SHORTAGES

Current shortage of timber for pallets has led several members to consider less common imported species and approach us for information. As a result we have produced several datasheets that sum up their use as packaging and pallet timber. Our recent sheets include *Eastern Canadian white pine* and *Japanese red cedar* (grown in South America) and parameters such as shrinkage, strength and perishability are included. If you have a query, tell us what species you are interested in and as this is a new Datasheet series and several of them are in draft a specific request will push that species to the top of the list.

PALLET RACKING

An independent steel pallet racking specialist recently gave a lecture to visitors to the *Materials Handling Live* Exhibition at Stoneleigh. PalletLink attended this and we were surprised to learn that although the knowledge of the speaker (an accredited racking inspector) was impressive, it stopped short of knowledge of timber pallet strength when placed in racking. We raised the question of the particular danger of drive-in-racking, also known as drive-through, which although it only comprises 5 to 10% of all racking in UK SEMA surveys, it nevertheless presents a far greater potential danger to those working nearby than beam racking. The impression we were left with was that SEMA felt it was up to the user and pallet maker to know about this.

Drive-in racking can mean support along two pallet sides, two pallet ends, or at four corners of a pallet. Drive-in racking is often less rigid in order to maximise warehouse storage space, it also applies greater stress to the pallet, particularly the four point support type of racking. If members are currently supplying drive-in racking and have concerns about its safety, we are able

to assist. It is particularly important to get nails and joints used in pallets for drive-in-racking assessed for strength.

HIGH, MEDIUM and LOW - NAIL QUALITY

Nail testing to EN ISO 12777-1: 1997 *Methods of test for pallet joints, Part 1: Determination of bending resistance of pallet nails* is shown in action in the illustration using a Verus 127 Bench tester. The ISO test is a fast internationally recognised method that does not use wood in the specimen tests so this makes it free of errors which arise from the use of a naturally variable material.

The results of these tests are *torque* expressed in Newton meters (Nm) and this enables the specifier to compare with the three nail qualities (Low, Medium or High) given in EN ISO 15629: 2002: *Pallets for materials handling - Quality of fasteners for assembly of new and repair of used wooden flat pallets*. The ISO test results should not be confused with MIBANT angle or the ultimate tensile stress in N/mm² of steel usually taken at the foundry as neither of these are comparable to the ISO test to any realistic degree of accuracy. Nail bending strength testing for members is a free service up to reasonable numbers per annum.

Outside the free PalletLink service we can also test nails for the second part of EN ISO: 12777 *Nail withdrawal resistance from wood, composite material or plastic blocks*. This test involves procurement and conditioning of appropriate density wood specimens prior to driving nails into specimens in advance of testing. Tests are complex and take some time and work is chargeable.



Further PalletLink Datasheets on fasteners give details of - *Robiment, Verus Bench tester, Nail quality explained, Nails for safe working loads and Brittle fracture*.

NEW WASTE RESTRICTIONS

EU requirements mean that from Autumn 2007 UK industrial and commercial premises will no longer be able to send waste to landfill each year without first sorting it. This means the end of mixed waste bins. Our industry will soon face another environmental challenge; effective segregation of the wastes generated. Industrial and commercial premises in the UK generate some 70 million tonnes of waste annually and the majority is not recycled and goes to landfill. Up to now it has been cheaper to bin waste and send it to a landfill site.

That is about to change from 30 October 2007. Under the new Producer pre-treatment requirement of the EU *Landfill Directive*, businesses will no longer be able to send non-hazardous waste to landfill without prior treatment. This means segregating waste streams, including recyclable material. The treatment is intended both to reduce the amount of non-hazardous waste going to landfill and to reduce the impact of waste when it is landfilled. It means the end of the traditional mixed bins of waste that are found in most commercial establishments.

As the costs of not recycling are high for businesses in terms of EU fines for non-compliance with the Landfill Directive, it

means that the issue of recycling participation cannot be ignored any longer. Changing from mixed waste to segregated recycling is not always the cheapest option today, but, as penalties for failure to meet the pre-treatment requirement increase and landfill taxes escalate rapidly over the coming few years, the point at which it becomes sound economics to recycle is near.

STACKING HEIGHTS FOR EMPTY PALLETS

There is no standard that covers empty pallet stacking and the Table summarises stacking on level tarmac or concrete in multiple supporting tiers/blocks data on best practice collected from new, second-hand, and rental pallet organisations.

Same size - undamaged	repaired or new	max 44 high	or max height 6.6 metres
Mixed size - undamaged	repaired or new	max 35 high	or max height 5.3 metres
Sorted - damaged	stacked - await repair	max 30 high	or max height 4.5 metres
Unsorted - damaged	stacked - await repair	max 20 high	or max height 3 metres

Mixed - implies nothing smaller than the 800 x 1200 Europallet, and these stack heights are maximum heights, but height reduction may be necessary due to a number of factors. These might be:- proximity of a walkway, poor surface, slope for drainage, nearby private property. A small height *increase* may sometimes be appropriate, for example pallet rental companies often stack *own brand* unsorted damaged pallets 30 high safely because sorting has automatically taken place. Plastic and steel pallets normally have lower friction properties than wood and are unlikely to be safe at these heights, also the open bases of *stillages* means they are not intended for stacking to any height.

Stacks should never be located in isolation; they should be erected in multiple blocks so they support one another against wind or fork truck impact. The UK metrological office states that wind velocities are higher in Scotland and Northern Ireland than England and Wales and the Table heights do not allow for conditions of extreme exposure to wind, they are collected from English pallet sites. A site fully exposed to prevailing winds having no windbreak of trees or buildings would reduce the heights above. Also construction of pallet has an effect - bearer type pallets with very narrow bearers when at the bottom of a stack present an overall weakness in that such bearers can fail by a rolling movement due to wind or truck impact.

Some insurers stipulate a fire risk constraint of having no pallet stacks *against* buildings and those which are located close to them must be far enough away not to hit the structure if they were to topple over so they would be less likely to spread the fire to the building.

Wood pallets should not be stacked on grass or unmade ground for more than a few days. Apart from stack instability, rising ground moisture creates ideal conditions for wood decay in the bottom pallet.

Copyright PalletLink®. While every effort is made to ensure accuracy of the data given, PalletLink cannot accept liability for loss or damage arising out of the use of the information. The details supplied are relevant as at the date of this Newsletter. embers are advised to contact PalletLink if in doubt over any aspect of pallet or packing case manufacture or usage.