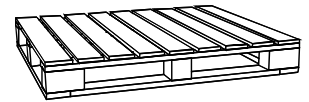


PalletLink Newsletter

technical support for the pallet and case manufacturer & user



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CEN AND PALLET FINGER TRAPS

Denmark has initiated work with CEN the European Standards body intended to remedy what they consider unsafe finger-traps due to the 1000 x 1200 EN-13698-2 pallet having deckboard gaps between 21 and 31mm. They are suggesting deckboard gaps no smaller than 29mm. If they are successful it may eventually have implications for all pallets, so if you have a view on this please let BSI or PalletLink have it in writing.

PDS - MAY NEED ADAPTING FOR EUROPE

We get a number of enquiries from members querying payload results from PDS (Pallet Design System) software. PDS is the market leader in Europe and is a comprehensive USA package produced by VPI and marketed by the NWPCA. This package designs pallets using USA criteria which are not always European though on the plus side PDS uses European wood species and recent versions contain European pallet designs.

The basis for safe pallets in the UK and Europe is *ISO 8611: 1991 - General-purpose flat pallets for through transit of goods - Test methods*. This is the only document quoted by the UK safety authority HSE in *PM15 - Safety in the use of pallets*. It is this that PalletLink uses for estimation of safe loads for pallets.

The PDS is not calibrated to mirror International pallet test standards and it usually gives lower SWL results, eg. a pallet supporting 700kg in PDS might give 900kg SWL in an *ISO 8611* test. Additionally the PDS does not always respond to a change in nail diameter in the base butt-joints of full-perimeter block pallets, which are often the weakest point in pallets loaded into beam racking. We still recommend PDS as the best available software, but will be happy to help members with any difference between their experience of pallets in use and PDS estimation of safe customer payloads.

NEW INTERNATIONAL PALLET STANDARDS

It is one of PalletLink's functions to keep members informed of overseas work. To this end we represented the UK at a 5-day meeting of the ISO pallet committees WG2, WG4 and WG6 in Bordeaux in November. The following is a summary –

Load testing of pallets WG2

- ISO 8611-1: *Pallets for materials handling - Flat pallets – Part 1: Test methods*. (Not quite finalised)
- ISO 8611-2: *Pallets for materials handling - Part 2: Performance requirements and selection of tests*. (Not finalised)
- ISO 8611-3: *Pallets for materials handling - Part 3: Maximum working load*. (Not finalised)

Much progress had been made and there is no doubt that the huge amount of test work undertaken by USA, Korea, Germany, France and Japan, co-ordinated by the USA and UK will have longstanding benefit and lead to a better set of 8611 standards than hitherto. Some controversial technical items arose. For example there is a technical difficulty with correlation between the existing steel bar method and the air-bag method of

applying load during testing. The meeting agreed to scale down the originally intended significance of the USA air-bag method.

The UK and Austria raised the issue of major European pool pallets falling short of the performance requirements set in the new documents as drafted. The UK was asked by the Convener to comment on the matter in detail and this was done. PalletLink estimate a typical 10-15% shortfall in SWL rating of major designs.

Slip sheets for unit load handling WG4

This has been worked on primarily by the USA and Japan and ISO TR 12776: *Pallets - Slip sheets* is now a useful document. No delegates raised issues so this will proceed smoothly to the next stage. The UK will vote positively on it in final ballots.

Terminology used in the industry WG6

Following substantial work by Sweden, Austria and the UK, including new terms for stacking and proper coverage of box pallets etc., the latest draft revision of an extended ISO 445: *Pallets for materials handling – Vocabulary* has proceeded. No delegates raised unresolved issues, so this will proceed to the final ballot FDIS (Final Draft International Standard). The UK will vote positively on this document.

STATUTORY FOOTING FOR ISPM 15

To meet the threat of imported wood pests the UK Wood Packaging Material Marking Programme has been operating as a voluntary programme since it was first introduced in October 2001. It now has over 700 participants approved to apply the ISPM15 mark to treated timber and fabricated wood packaging. The Government have now put the Programme on a statutory footing to ensure the Forestry Commission have the ability to deal effectively with fraudulent marking and malpractice. The document is - *The Plant Health - Wood Packaging Material Marking - Forestry - Great Britain - Statutory Instrument 2006 No. 2695*. It came into force on 6th November 2006 and in addition to setting out the requirements to be met by registrants, it prescribes a number of offences and penalties.

The Forestry Commission UK Wood Packaging Material Marking Programme leaflet has been revised to reflect the Programme's new statutory footing it is available from us or on the FC's website at www.forestry.gov.uk/planthealth

PASSIVE/SOLAR HEAT TREATMENT

The International Forestry Quarantine Research Group (IFQRG) recently met at the FAO Headquarters in Rome to discuss a number of issues, which included the risks from wood packaging material with bark and alternative treatments to the approved measures within ISPM15 of heat treatment (HT) and methyl bromide (MB) fumigation. United Nations sponsored bodies such as FAO are always trying to ease problems and IFQRG looked at alternative strategies for removing pests. These included Passive/Solar heat treatment, microwave heating, chemical pressure impregnation and the use of other fumigants

such as sulphuryl fluoride. Sulphuryl fluoride is already permitted outside of the ISPM 15 scheme by the New Zealand Ministry of Agriculture and Forestry who also permit chemical preservation treatments such as boron compounds, copper azole, CCA, propiconazole & tebuconazole. Clearly there may eventually be scope for other treatments within ISPM 15.

PEFC

UK wood packaging manufacturers who need to have a *legal and sustainable timber sourcing* profile have been considerably aided by the very recent decision by the UK Government to give such status to PEFC (Programme for the Endorsement of Forest Certification). FSC (Forest Stewardship Council) has long been recognised by the UK for the purchasing of Government or Local Authority purchasing.

This makes it easier for companies who buy their timber from suppliers (forests, sawmills or agents) who are solely accredited by PEFC. Although many other European countries have long recognised PEFC, not so the UK Government who until very recently only recognised FSC.

In spite of UK Government reservations, PEFC, which is the largest forest management certification umbrella in the world, is endorsed by the United Nations Forestry Forum and an association member of the International Accreditation Forum. It complies with internationally accepted criteria for credibility and is recognised as being transparent; it is also widely in use by some of our European neighbours as giving the best *sustainable timber sourcing profile* to a wood user company.

FORKLIFT USERS UNSURE OF REQUIREMENTS

Continuing ignorance of 'Thorough Examination' among forklift users has been reinforced by the results of a Fork Lift Truck Association survey. Basically, if you operate a fork lift truck, you have a legal obligation to ensure that it holds a valid *Report of Thorough Examination*. This applies whether you own, lease or hire the truck. Little more than half (56%) said they knew what *Thorough Examination* was, despite the fact that it has been a legal requirement since 1998. Fewer still recognised that the procedure was a legal requirement. There was widespread - but erroneous - belief that it was a normal part of routine maintenance, just 13% knew that it was not normally covered within those processes. The FLTA and BITA, have set up an accredited scheme for *Thorough Examination*, in consultation with the HSE. Details via www.thoroughexamination.org

MIX OF NEW AND USED FOR FSC

One of our members had a customer who needed a small number of pallets stamped with FSC (Forest Stewardship Council), and thought he would not be able to supply the customer with recycled pallets, but be restricted to new. Whilst recycled pallets are in a similar environmental category to FSC marked wood products, ie. saving the planet, they cannot be sold as FSC accredited. Nor can a non-FSC accredited company buy-in FSC timber boards and make FSC pallets.

However a pallet maker could become FSC accredited for pallet supplies and a mix is allowed eg. 10% FSC pallets and 90% recycled. The typical cost of FSC accreditation to recyclers is quite low and FSC are very helpful in this. The effort on a makers part would be about the same as registration for the

Forestry Commission Heat Treatment Marking Programme but without the cost of a kiln. The short term solution for this member was to buy-in, but note that, unlike ISPM 15, new pallets made to FSC standards do not have to have FSC marked on the product, these are the options -

1. The *suppliers invoice* should quote the details of the pallets and his FSC supplier registration number, or
2. Apply labels or swing tickets *on the pallets*, or
3. *Brand* with the FSC logo.

DURABILITY v STRENGTH

If a pallet or case is described as *durable* it might be reasonable that a customer expected it to be strong, stiff and long lasting, even when stored outside. Some members seem to think so too. However BSI, CEN and ISO do not.

A member called about an apparent difference between our Datasheet PD71 Strength properties and Datasheet 72a Durability. The query was that while ash and beech were near the top in Sheet PD71 (Strength properties) they were at the bottom in Sheet 72a (Durability). In fact both sheets are absolutely correct since durability and strength are quite unrelated in the scientific world. Durability, hardness, strength, and stiffness, seem not unrelated terms but BSI, CEN and ISO use terms precisely and that is also what the PalletLink sheets do. However we are now aware of possible confusion and in future editions will state what we mean at the beginning of a PalletLink Datasheet. For example -

The *durability* of a wood species is a measure of perishability (how long before wet-rot sets in)

The *strength* of a wood species is a measure of maximum breaking load at moment of fracture.

The *stiffness* of a wood species is a measure of how much it bends or springs under load.

The *hardness* of a wood species is a measure of how much it indents under a point load.

The *resistance* of a wood species is *not a preferred term*; it is meaningless unless allied to another eg. *compression* -

The *compression resistance* of a wood species is a measure of how much it indents under a localised distributed load.

The *shear resistance* of a wood species is a strength limit rarely encountered even under the highest loadings in wood packaging (unlike *bending strength* which is almost always limiting.)

NEW FOOD REGULATIONS - PALLETS AND BOXES

This is to be a new standard for our major customer - the food industry. We first alerted members when CEN started this work in 2003 and in our spring 2006 Newsletter we ran a major item on it. The draft standard 261344 is now at the comment and voting stage, the requirement for pallets is as follows:

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, unfinished and finished products.

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