

Presentation to Air Freight Council of Queensland Ltd. Tuesday May 2nd 2006

EXPORT PALLETS

There are literally dozens of different sized pallets used for export. This is largely because shipping containers vary considerably in their internal measurements. A standard 20 or 40 foot container has inside width of between 2346mm and 2354mm, whilst a reefer container only has 2236mm. It then comes down to whether the product has an overhang on the pallet and whether the pallets are perfectly vertical.

Generally speaking the two most common sizes are 1100 x 1100 and 1140 x 1140. Also the ISO Pallet size of 1200 x 1000 is also commonly found in export shipments, often because the customer has requested that size or because the cartons or packaging is modular to the 1200 x 1000 size..

AUSTRALIAN EXPORT-SIZE PALLETS: MARKET SIZE

No known statistics are available. Previously estimated at 3 million and now confirmed by industry experts to be somewhere around 3 to 4 million per annum.

Alternative products such as slip-sheets have almost completely taken over two of our major export markets, bottled wine and milk powder, although slipsheets do not seem to have achieved any significant volumes outside these two product categories.

After functionality, the key-influencing factor is price. Phytosanitary measures are also increasingly becoming more relevant in relation to equipment selection, because exporters do not wish to take risks involving possible delays and unknown costs in overseas ports.

EXPORT-SIZE PALLETS: PHYTOSANITARY MEASURES IN GLOBAL TRADE

The United Nations have released their standards for phytosanitary measures aimed at reducing the risks of introduction and/or spread of quarantine pests associated with wood packaging used in international trade.

The standards are contained in the documents:

<http://www.smallbiz.nsw.gov.au/export/forms/AWPCS%20December%202004%20V1.doc>

The regulation, generally known as ISPM15 and backed by the United Nations, is designed to address the global spread of timber pests and disease by regulating the movement of unprocessed raw timber packaging and dunnage. In summary, the following are U.N. approved measures for treating coniferous wood packaging:

- ❑ Heat treatment (kiln drying), which requires a minimum wood core temperature of 56°C for 30 minutes. Note, there are other heating options other than kiln frying, such as steam or hot water. All timber which has been heat treated, should show the marking HT*
- ❑ Methyl Bromide fumigation, to be applied according to a formula of concentration, dosage rate and temperature. Packaging so treated should show the marking MB*

Wood packaging material intended for export must always meet the conditions of entry specified by the importing country. It is the responsibility of the exporter to know and meet these requirements.

Where an importing country has implemented ISPM 15 and wood packaging material that does not carry the required certification mark is exported, the importing country may take action. This action may take the form of treatment, disposal or refused entry. These will potentially result in considerable delays and extra costs.

Most exporters are therefore “playing safe” by always meeting U.N. standards, regardless of the destination.

The reported comments that by 2015 all wood packaging, whether it has been ISPM15 certified or not, will not be allowed into Australia, has no basis of fact. It is apparent that the ISPM15 regulations will need to be progressively more stringently enforced throughout the world, including Australia. However, to most observers it is inconceivable that wood will ever be replaced as a material for packaging and dunnage in international trade.

AUSTRALIAN EXPORT-SIZE PALLETS: AVAILABLE OPTIONS

1) VISY SPECIALTIES: CARDBOARD PALLETS

http://www.visy.com.au/divisions/item_detail_page.aspx?did=4&sid=1&cid=40&scid=0&id=20

- ❑ Can be designed to meet customer-specific requirements in relation to load capacities, 2-way 4-way, rackability and moisture protection (Armacel coating). The standard pallet is 1125mm square with a 90mm underneath clearance. The load capacity is given verbally as 1 tonne dynamic, although this has not been tested and is likely to be less
- ❑ 90% of VISY's annual production of 150,000 are for export
- ❑ Pallet weight, without Armacel, is 7.5 kgs. Coating is 0.2 kgs
- ❑ Melbourne is VISY's sole pallet manufacturing plant, although they are sent unassembled interstate for local assembling.
- ❑ A report on cardboard pallets in the UK revealed that from a starting point of zero in 1995, by 1999 the annual use of export pallets from the UK increased to over 500,000 per annum. Amongst the major companies making the change from the UK are companies including Kellogg's, Nestle, Proctor & Gamble, Glaxo Smith Klein and Ricoh.
- ❑ Pricing:
 - i. Standard, ex Reservoir, \$11.00 to \$17.00. (the latter being 4-way entry)
 - ii. Armacel coated, ex Reservoir, \$14.50 to \$20.50. (n.b. Armacel coating is for moisture protection only, and only adds 1% to the strength)



2) OTHER INJECTION-MOULDED PLASTIC PALLETS



- ❑ Typically nesting pallets from several different overseas manufacturers (Asia, Germany)

- *Generally between 7.5 kgs and 9 kgs. Dynamic loading capacity of between 700 kgs and 1000 kgs.*
- *Most are available in 1100 x 1100 and 1200 x 1000*
- *Pricing*
 - i. *JMP Holdings market at \$37.00 ex Melbourne store*
 - ii. *AVIPLAST market at \$36.00 ex Brisbane, but not currently stocked. (See Appendix 3)*

3) PLASTIC SLIPSHEETS

- *Especially suited for high volume, medium to low density freight, where the space taken up by the pallet, reduces the weight capacity of the container*
- *For bottled wine, almost all exports are slipsheeted*
- *For milk powder, almost all exports are slipsheeted*
- *Generally 0.9mm thick recycled HDPE sheeting, with a 75mm tab which protrudes on one side. A raised stipple pattern on one side is the effective way of gaining grip on the product side of the sheet (upper). One company in New Zealand (Replas) is the sole supplier*
- *Corrugated or fibreboard slipsheets are also available, but are vulnerable to degradation due to moisture.*
- *Pricing: For plastic 1130 x 1205, approximately AUD\$ 2.50 each*

4) SECOND HAND PLASTIC PALLETS

- ❑ *A very active market sector, with each city having several dealers, picking up surplus pallets and finding exporters to purchase*
- ❑ *Suffers from inconsistent supply and variable dimensions, inconsistent cleanliness, often unknown safe loading capacity, and often unsafe for racking*
- ❑ *Pricing: Generally bought for \$5.00 or less ex the client's plant and sold for \$12-15.00*

5) OTHER TIMBER PALLETS

- ❑ *A proliferation of manufacturers as it is a low-cost entry into the market.*
- ❑ *A vast range of sizes and pallet styles.*
- ❑ *Loading capacities from 300 kgs to 2000 kgs*
- ❑ *Pricing from \$7.20 to \$21.00 each ex works. Similar pricing in all main cities See Appendix 1*
- ❑ *Certified Kiln dried timber generally adds 15-20% to the manufactured cost of the pallets*
- ❑ *A fumigation service is also available at \$1.20 per pallet, plus freight to and from.*

6) LIGHTWEIGHT POLYSTYRENE PALLETS by AIRDEX:

- ❑ *They have one plant in Australia, Gosford. They have one in the USA and one which is right now being built in Wellington NZ*
- ❑ *Capacity: Single shift 1000 per week of a typical 1100 x 1100 pallet. They are currently running a twilight shift and producing 1560 a week*
- ❑ *They generally hold stocks of their major selling lines. New products can be designed and produced within 7 days. There is no tooling cost*
- ❑ *Their EPS cores come from Asia. They use two types of sheeting to the pallet. They have an extruded PS for the top deck, and an expanded PS for the legs. The extruded PS comes from Asia, from a plant that he built in 1996. It is very dense with a high tensile strength. This is the Cellfoam*

88 product which is the raw material they use for many other products apart from pallets

- ❑ *The pallets now have 3 skids, with cut outs for 4-way entry and no longer the 9 pods*
- ❑ *One of the indirect advantages of the pallets for fruit and vegetable shipments, is that the pallets do not draw moisture out of the produce, whereas timber pallets actually allow moisture to migrate from the produce to the pallets. This has a big affect on the selling weights of the produce*
- ❑ *Export pallets are used 80% for sea freight and 20% for airfreight.*
- ❑ *No minimum order size for specials.*

7) **INCA PRESSWOOD**

- ❑ *These pallets are only made in the USA but are to be found all around the world.*
- ❑ *They are moulded in one solid piece from wood fibres and environmentally safe synthetic resin, under high pressure and high temperature.*
- ❑ *They offer low 6-8% moisture with no moisture transmission from pallet to product.*
- ❑ *They are available in a variety of sizes, and each comes in Medium, Heavy Weight and Extra Heavy Weight, with dynamic load ratings of 680 kgs, 900 kgs and 1150 kgs.*
- ❑ *They have no nails nor staples and are nestable, and a stack of 50 is just 2.1 meters high*
- ❑ *The pallets are suitable for export to most countries in the world, including Australia, New Zealand, Brazil, China, and Germany. No additional treatment for overseas shipping is necessary because the high heat manufacturing process burns out all infestations.*



- *Pricing.*
 - i. *Heavy Weight: around AUD\$ 15.70, landed and deconsolidated, eastern Capital City metro area*
 - ii. *Extra Heavy Weight: around AUD\$ 16.50, landed and deconsolidated, eastern Capital City metro area*

- *Comments: The shipping costs of these pallets from the northern hemisphere make them too expensive. It is rumored that local production may start up in the near future.*

For information about any of these pallets, please contact Malcolm Allchin of Pallet Control Australia Pty Ltd. Pallet Control Australia (03 9703 5333) are independent experts in pallets and in their management. Our mission is: **We take care of your pallets, so you can stick to your core business.**