

## | Technology/Equipment

### Plastic pallets offer weight, durability advantages over wood

It may not be the first thing you think of when asked to name the most important equipment in your DC, but pallets are a vital piece of material handling equipment. And while it may seem that pallets are pallets, there are some choices to consider when selecting the best pallet for your operations. For instance, have you compared different pallets based on what they are made of?

Plastic pallets offer several benefits over traditional wood pallets, explains Bob Moore, CEO of the new plastic pallet pooling organization Intelligent Global Pooling Systems, or iGPS Company LLC.

- *Weight.* Wood pallets weigh about 75 lbs., while plastic pallets weigh under 50 lbs. When you're shipping hundreds of pallets a day, that's an advantage that Moore estimates could translate into significant fuel savings.

In fact, if the one billion wooden pallets currently in circulation in the U.S. were replaced with plastic pallets, it would remove more than 28 billion pounds of non-value freight from America's shipping infrastructure, according to iGPS.

In addition, the lighter weight is more in line with OSHA recommendations for workers han-

dling empty pallets.

- *Reduced damage to product.* The top of the plastic pallet can be almost solid, so there are no gaps as there are between the boards on most wooden pallets. That helps protect items from damage.

- *Consistent quality.* As companies have tried to address the labor issue over the past decade, several have implemented automated storage/retrieval systems (AS/RS). This equipment is driven by sensors that measure weight and dimension, and the systems are generally designed with a close tolerance, which means there is little room for deviation.

"A wooden pallet just doesn't perform the same every time. Its weight is often different, for example," says Moore. A wooden pallet that weighs 75 lbs. in Miami may weigh only 68 lbs. in Phoenix, Az., he says. Similarly, if a board is damaged and out of alignment, or a block is missing, it will affect the pallet's dimensions.

Plastic pallets always have the same weight and dimensions.

- *Durability.* Whether it's fork-lift damage, too much weight, or because employees didn't treat empty pallets appropriately, pallets are one of the most frequently damaged items in the DC. Moore

spent seven years as CEO of the wood pallet pool supplier CHEP, and he says it cost the company about \$2.95 to repair a wooden pallet — something that needs to be done on a regular basis.

Testing shows plastic pallets will have a 10-year life cycle, says Moore, though he believes it will be even longer in real-world application. This cuts down on repair or replacement of damaged pallets.

And that can be a significant savings. The total annual global market for pallets is conservatively estimated at \$14 billion by industry analysts, and more than 600 million (primarily wood) replacement pallets are added each year.

- *More sanitary.* If you are shipping products such as food, you may have to worry about cross-contamination with wood. It's much easier to sanitize plastic.

- *Environmentally friendly.* Plastic pallets are 100 percent recyclable, so old pallets never end up in the landfill.

One drawback to plastic pallets: They're more expensive than their traditional counterparts, so if you are considering buying your own, the initial investment will be greater. The cost ratio for a plastic pallet to a wooden one is about

2.5:1. But when you consider total cost of ownership for these pallets over their lifetime, that price difference should soon be made up.

### **Pharmaceuticals, electronics well suited for plastic pallets**

“We think the plastic pallet makes sense for everybody, including grocery,” says Moore, although

iGPS will initially target consumer electronics and pharmaceutical suppliers. He explains that the company is starting with these two industries because they are particularly suited for plastic pallets. Electronics firms can benefit from the damage reduction plastic provides, while pharmaceutical companies need the tracking and tracing pro-

vided by the radio frequency identification (RFID) tags.

Moore claims iGPS will be the only large-scale outside pallet supply service to provide RFID on every pallet, as well as a readable barcode on all four sides for users who don't have RFID technology.

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