

## Pricier bulk packaging causes no shake-up in usage patterns

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**By Gordon Graff -- Purchasing, 10/16/2008**

The recent escalation in plastic resin prices has not caused any massive shifts in the types of bulk packaging used to ship manufactured goods. That's partly because the prices of competing bulk packaging materials, particularly steel, are also on the upswing. It also reflects an innate conservatism among packaging suppliers, who are reluctant to make sudden design changes that might be jarring to their customers.

But long-term trends in raw material economics, environmental legislation, and global sourcing are slowly changing the product mix in the bulk packaging arena. In particular, the configurations that are gaining ground are those which offer greater convenience at lower cost, which meet a Green agenda, or which make trans-oceanic shipments easier. For example, U.S. sales of flexible bulk plastic film wrap, which makes it convenient and cheap to bundle and protect goods during long ocean voyages, will grow by 6.2% annually through 2011, according to an estimate by The Freedonia Group. Meanwhile, the firm projects that demand for steel and fiber drums, which are relatively heavy and expensive, will rise by only 1.7% annually during the same period.

In the short term, bulk packaging makers, along with their customers, have been hurting. For instance, the linear low-density polyethylene used in many flexible bulk film designs has shot up in price by about 50% over the past year. Even when confronted with such price shocks, however, "shippers aren't automatically switching to completely different packaging systems," says Lewis Anderson, executive vice president of the Flexible Intermediate Bulk Container Association (FIBCA), a Minneapolis-based industry group.

One reason, he notes, is that switching can entail a "significant investment" to modify the filling and discharging infrastructure to accommodate new types of containers, and to bring the new containers into compliance with environmental regulations. These extra costs, Anderson notes, can deter shippers from making sudden changes in the packaging they use. Typically, he adds, shippers usually base their bulk packaging buying decisions on some combination of materials costs, transportation costs, environmental considerations, and the ease of disposal or re-use of the containers.

Suppliers of bulk packaging, meanwhile, are aligning their product features with today's megatrends, such as the growth in overseas sourcing of raw materials by U.S. manufacturers. Overseas buying "is the biggest driving factor in our business," says Kevin Stuart, marketing director at Paper Systems, a Des Moines, Iowa producer of bulk liquid packaging. He says that his firm's one-way liquid bulk containers for transporting foods, chemicals and other non-hazardous materials are much better suited to international shipping than the drums they replace. He notes that the containers, made of a corrugate and polyethylene construction, are easier to fill than drums, require only about one-tenth of the shipping space as drums, and are disposable and

biodegradable. Stuart concedes that recent plastic price hikes have eroded some of his bulk containers' economic advantage over steel drums. But he points out that other plastic shipping containers, such as pails and 55-gallon drums, have been impacted even more by the increases.

Another force influencing bulk packaging is the Green movement, which is being driven by both regulatory and voluntary measures. At Berlin Packaging, a major stocking supplier and distributor of rigid packaging, Glenn Scott, vice president of supply chain logistics at the Chicago-based firm, says that "the only major shift" in his company's product slate in recent years has been a movement away from PVC materials to alternative resins. (Polyethylene is the most common packaging alternative to PVC.) He says his company adopted this policy in the wake of pending legislation in California that would ban rigid PVC packaging starting in 2013, and flexible PVC packaging after 2015.

Scott adds that "we're just beginning to deal with the demand for more sustainable packaging." He defines this term as greater use of post-consumer or recycled resins. He notes that manufacturers have recently stepped up their use of post-consumer packaging in response to high-profile initiatives by some giant retailers, most notably Wal-Mart. Earlier this year, that chain began rating more than 6,000 of its suppliers on how much progress they have made toward the use of sustainable packaging.

The Wal-Mart program encourages not only greater use of post-consumer resins in packaging, but also switching to biodegradable plastics, and the down-sizing and down-gauging of packaging. When it comes to bulk packaging, however, biodegradability can introduce problems. In bulk film stretch wrap, for example, "when you introduce biodegradability you lose the integrity of the product from a performance standpoint," says Paul O'Loughlen, industrial manager for Western Plastics, a Calhoun, Ga. manufacturer of packaging films.

For the present, says O'Loughlen, a much better route to Green packaging for bulk stretch films is to down-gauge them, which reduces the amount of material they use. An example of this approach, he says, is Western Plastics' recently launched line of linear low-density polyethylene (LLDPE) stretch films for wrapping pallets. While most stretch films for this application are 80-gauge, he says, the new line, dubbed Hybrid80, uses film of only 47-gauge, yet performs just as well as the conventional film, he claims. The down-gauging of the new films is made possible by incorporating into them LLDPE made with metallocene catalysts, a technology that produces polyolefins of exceptional strength. Aside from its Green aspects, the new film costs less than the standard packaging films, says O'Loughlen, though he won't quantify the savings for buyers.

Saving money is very much on the minds of bulk packaging consumers today. While shippers don't casually change their modes of packaging, economic circumstances sometimes require them to switch. Chemical distributor TRInternational used to send many of its products to overseas customers in huge bulk shipping crates called isotainers, notes Shondra Garrigus, vice president of purchasing at the Seattle-based firm. But over the past two years, she says, a scarcity of the isotainers, and a resulting run-up in their cost, has caused the company to shift more of its shipments to lower-cost flexitanks, which are large plastic bags installed inside box containers.

In U.S. shipments, says Garrigus, "we are drumming less material these days," partly as a result of steel drum costs that have leaped by 31% over the past year, and also because some customers have decided to drum material themselves to avoid service charges.

While such measures have helped TRInternational counter the surge in packaging and freight costs, some of these added outlays must still be passed along to the company's customers. But Garrigus says the customers usually agree to some compromise on the pass-along issue, "whether that means sharing the [extra] costs or being flexible about the type of packaging used."

<b>Major U.S. rigid bulk packaging producers</b>			
Greif			
Mauser Corp.			
BWAY Corp.			
Orbis Corp.			
Letica			
Weyerhaeuser Co.			
<b>Major U.S. flexible bulk packaging producers</b>			
Illinois Tool Works			
Exopack			
Altivity Packaging [Graphic Packaging Holding Co.]			
Berry Plastics			
Sigma Plastics			
Bemis Co.			
AEP Industries			
<b>Bulk packaging market at a glance</b>			
<b>Item</b>	<b>2006</b>	<b>2011</b>	<b>Annual growth (%) 2006–2011</b>

Overall Demand	\$6,070	\$7,185	3.4%
Shipping Sacks	\$2,465	\$2,685	1.7%
Film Wrap	\$1,930	\$2,610	6.2%
Strapping	\$735	\$805	1.8%
Drum/Box/Bin Liners	\$610	\$725	3.5%
FIBC (Flexible intermediate bulk containers) and Other	\$330	\$360	1.8%

<b>Item</b>	<b>2006</b>	<b>2011</b>	<b>Annual growth (%) 2006–2011</b>
Overall Demand	\$5,550	\$6,590	3.5%
Drums	\$1,605	\$1,745	1.7%
Pails	\$1,600	\$1,930	3.8%
Material Handling Containers	\$880	\$1,115	4.8%
Bulk Boxes	\$805	\$915	2.6%
RIBC (Rigid Intermediate Bulk Containers)	\$660	\$885	6.0%

Source: The Freedonia Group