

packaging digest

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A **honey** of a bulk shipper

While Mexico may no longer top the world in honey production, Hansa Mieleles finds a 220-gal intermediate bulk container maintains profitability in a declining market, cutting storage space in half and saving 20 percent in labor.





Operators connect a fill hose to the IBC's fitment valve on the inner film liner, above left, and place a film shroud and corrugated cap over the container to protect the product, above center and right. Hansa Miele's ships more than 6,000 metric tons of honey a year.

Lauren R. Hartman, Senior Editor

*How doth the little busy bee
Improve each shining hour,
And gather honey all the day
From every opening flower—
Isaac Watts.*



Winnie the Pooh's favorite, honey remains one of the top sweeteners in the world, and one place to get lots of it is Mexico. One of the world's largest producers and exporters of the tasty but sticky substance, Mexico ships nearly 40,000 tons of honey a year to Europe, the U.S. and Asia, with more than 45,000 beekeepers operating in excess of two million beehives. To keep its own honey business buzzing, Hansa Miele's S.A. de C.V., a top honey exporter since 1954, adopted a new way of bulk packaging honey for export, with a 220-gal intermediate bulk container (IBC) from Weyerhaeuser's SpaceKraft®.

Replacing steel drums, the IBC with replaceable film bag liners, stores flat, saving Hansa Miele's 50 percent in storage space needed for empty containers, 20 percent for filled containers and 20 percent in filling labor. Handling isn't as sticky a situation for both packager and customers alike. Filling operators just connect a filling hose to the IBC's fitment valve on the inner film liner and go about other jobs while the bag fills with product.

Well insulated

Despite Mexico's drop to ninth place among world honey producers (reportedly due to the introduction of Varoa mites and the African honey bee), Hansa Miele's honey sales remain sweet. One of Mexico's three largest honey exporters, the company ships more than 6,000 metric tons of honey a year. Much of the exports head to the U.S., Germany, Japan and Saudi Arabia.

Hansa Miele's plant in Vera Cruz began shipping the liquid honey in the SpaceKraft collapsible IBCs in April '99. It wasn't until a major U.S. tobacco



Filled, shrouded and capped IBCs containing honey are stacked two-high in Hansa's warehouse. Withstanding 30 tons of compression, the IBC can be stacked up to four-high.

company asked for honey to be delivered in a SpaceKraft IBC that Hansa Mielecs found the new bulk container especially suited to its export needs, reports general manager Alexander Hopf. "We had heard of the IBCs, but at first, were somewhat concerned about the chance of the honey crystallizing in shipment or storage. That hasn't been a problem. This is an eight-wall-thick corrugated IBC, and offers substantial insulation."

The IBC consists of three main container components: an outer corrugated sleeve; an inner film liner supplied in a corrugated cassette; and a corrugated overcap. The outer eight-ply sleeve is produced under a patented process that combines, from the outside, two 90# liners laminated together, followed by single plies of continuously wound 69# linerboard and a 33# A-flute corrugated medium that forms a seamless outer shell. The shell eliminates a manufacturer's joint that could weaken over time, as well as metal or wood components.

Lining the corrugated sleeve is a food-grade film bag liner from Scholle that SpaceKraft provides inserted into the corrugated cassette. Equipped with a two-inch-diameter threaded filling fitment at the top and a two-inch-diameter buttress-threaded fitment at the base, the liner comprises two inner 4-mil plies of linear low-density polyethylene film and an outer laminated ply of 2-mil low-density PE/60-ga biaxially oriented nylon/2-mil LLDPE. Fitments are located at the top and bottom of the bag for filling and dispensing, respectively. Customers dispense the honey via the base fitment.

"Because the liner is totally sealed on both ends, it's completely germ-free," says Hopf, pointing out that honey is also an antibacterial in itself. The operator will later place the bag liner cassette into the outer corrugated shell just prior to filling. SpaceKraft also provides the corrugated overcap topping the filled container.

Rugged and easily handled

Hansa Mielecs' move to IBCs has improved filling and container setup, Hopf says. Easy to stack, the rectangular container can withstand up to 30 tons of compression, according to SpaceKraft's figures. Thanks to the patented corrugated ply winding/manufacturing process that promises superior sidewall strength, the container can be stacked up to four-high for maximum mileage in a warehouse, ceilings permitting. Due to height limitations in the Vera Cruz plant, Hansa Mielecs stacks its bulk honey containers two- to three-high.

The empty IBCs arrive at the plant flat, 12 per pallet, permitting Hansa Mielecs to store a dozen empty containers in about 24 sq ft of space. They can also save up to 80 percent in storage space, again depending on specific situations, according to SpaceKraft.

After the honey is pulled from beehive frames by centrifuge, the honey is filtered and transferred to a 10-metric-ton holding tank.



An operator then positions the outer corrugated sleeve on a pallet, opens the bag cassette and attaches a filling hose to the fitting on the top of the bag. The operator then places the cassette in the bottom of the corrugated sleeve. The IBC is then weighed, and the bag is ready for filling. After setup, a second operator opens the valve on a filling hose.

As the bag fills, it begins to rise to the top of the outer corrugated sleeve. When the IBC is full, and the bag reaches the proper weight, the operator shuts off the valve, removes the filling hose and threaded connector, and removes the IBC from the scale.

The corrugated top cap is then placed over the bag just after a LLDPE shroud (also from SpaceKraft) is placed over the entire container to guard against dust and moisture. The filled, capped container is then moved into the warehouse until needed for shipment. Hansa transports the bulk shippers by truck and sea in 40-ft-L containers.

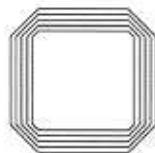
Fewer starts and stops

Hansa Mieles is buzzing with delight about its new bulk containers. They're easier to handle and fill than the individual drums, and require fewer trips to and from warehouse storage, Hopf says. "When filling drums, we continuously stopped and started for each one. Since this IBC holds 220 gallons, we can fill one container in a fraction of the time required to fill and handle four separate drums." The 220-gal IBC has become popular with customers and suppliers, Hopf reports. Customers are happy with it, since they also benefit from no longer having the headaches of drum disposal, he says. "We believe overseas customers will eventually require more and more products in these IBCs." More information is available:

IBC, bag cassette, shroud, top cap: SpaceKraft, a Weyerhaeuser co., 800/599-8943.

Liner: Scholle Corp., 800/544-8220.

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