

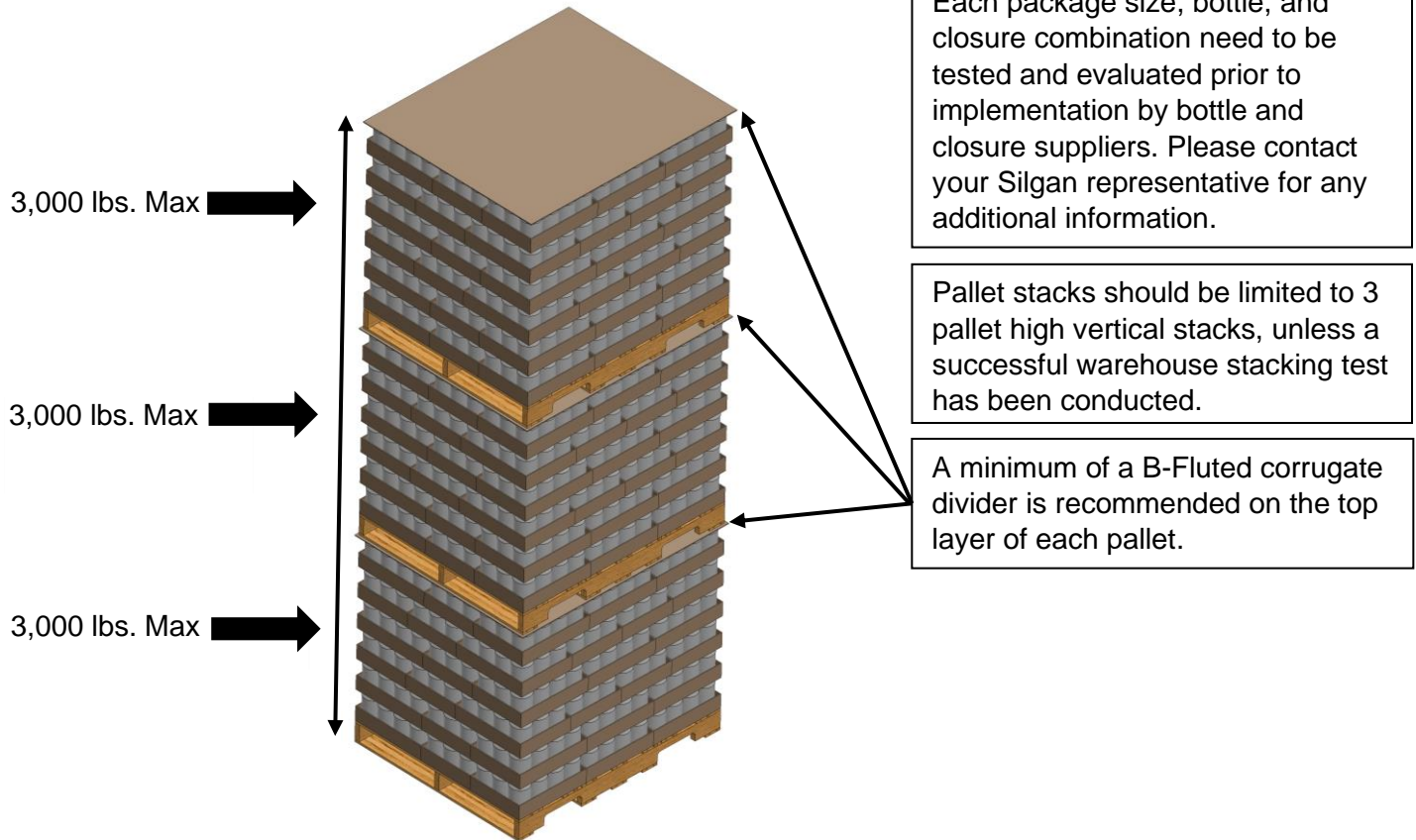
TECHNICAL ASSISTANCE BULLETIN



TOPIC: GUIDELINES FOR TRAY PACKING STEEL CLOSURES ON GLASS BOTTLES

NUMBER: 0017 REVISION: F ISSUED: September 21st, 2021

Purpose: This bulletin summarizes best practices for packaging, stacking, and shipping steel closures on glass bottles in tray packed, shrink wrapped packaging.

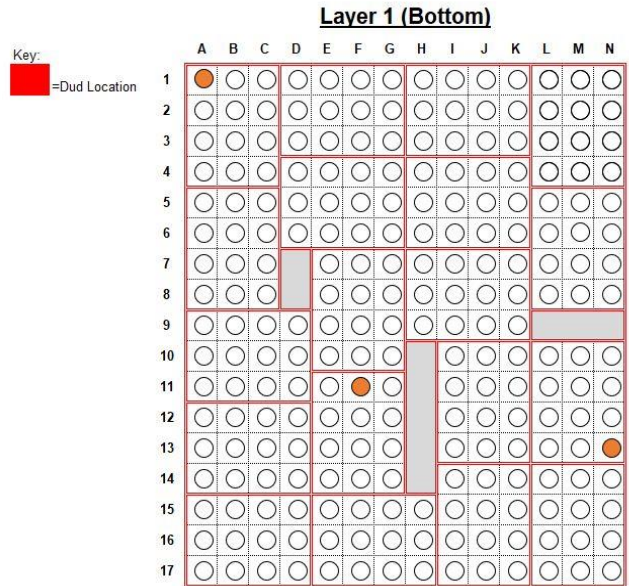


Packaging and Shrink Wrap Oven Control

- Tray packing reduces the package protection by as much as 75% over a conventional full wrap carton or case. Axial load strength of the vertical walls of the carton will also be lost.
- All packages should be dried of moisture especially in the closure curl area prior to shrink wrapping.
- All shrink wrap trays should allow air circulation to evaporate any residual moisture.
- Packages stopped in the oven are subject to interruption of the seal due to potential damage to the plastisol seal.

Palletizing and Warehouse Stacking Test

- For any new stacking practice, pallet stacks should be stored for 30 days, then off loaded 7 days prior to check each bottom pallet for dud packages. All duds should be evaluated to determine the cause of failure. Record the dud position relative to its location within the pallet and case by use of a grid configuration as seen in the figure on the right.



- Finished product shall not be stacked higher than three pallets high and total pallet stack weight should not exceed 9,000 lbs. Each pallet shall be no more than 3,000 lbs.
- Tray or carton pallet overhang should be minimized for maximum pallet stability. Carton or tray corners should rest on the pallet deck corners for maximum pallet stability.
- Pallets of stacked product should be machine stretch wrapped to provide consistent wrap tension. Wrap tension should not be excessive to minimize carton or tray buckling/damage that could shift load and lead to a potential loss of seal integrity on individual packages.
- All pallets should be as straight as possible. The use of corrugated dividers between each pallet is recommended for even load distribution and to avoid any potential abuse to the top of the closures when the cases are tray packed. A minimum of a B-fluted divider is recommended, and each divider should only be used one time.
- All wooden pallets shall be free of broken or missing boards with no protruding fasteners.

Shipping

- Silgan Closures does not recommend transporting pallets of finished product that are stacked 2-high in trailers or freight containers. Excessive movement of the top pallet can cause damage and a potential loss of seal integrity to packages on the lower pallet.
- Finished product needs to be protected from freezing conditions during shipping.

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