Frustration-Free Packaging Programs:
Common Failure Modes for Tier1-FFP and Tier 2-SIOC Packaging

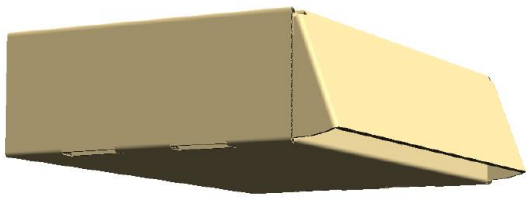
The following list of common failure modes have been identified by Amazon packaging. The problems and the corrective actions are considered a starting point as a best practice. These actions may or may not solve for the internal packaging needs by providing protection for the product. Once actions have been applied, all items will still need to be tested and pass the ISTA Amazon 6 SIOC test simulation.

- Needs tape or Not securely sealed
- Protrusions
- Box Deforms
- Carton Rupture
- Success or Blank
- Product Damage
- Not Six Sided

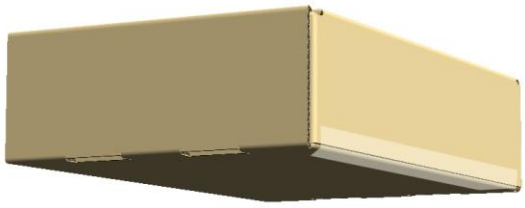
Needs Tape or Not Securely Sealed

These failure modes are similar. The first needing tape based on failure of the integrity of the carton. The second package defect is typically identified at the time of initial visual inspection and will likely not be subjected to ISTA 6 drop testing. Open or loosely tucked flaps as well as edges that are not securely adhered to an adjacent flap are not sufficient to survive testing and successfully traverse the ecommerce supply chain undamaged. The manufacturer should apply tape to seal down all flaps that are not securely closed. The following are examples of items that have failed testing:

Problem: Protruding tuck flap



Action: Tuck flap to be tapped down along entire edge of box opening



Problem: End flaps only secured with tamper evident stickers or partial tape

Action: Tuck flaps to be taped down entire length of box opening(s)

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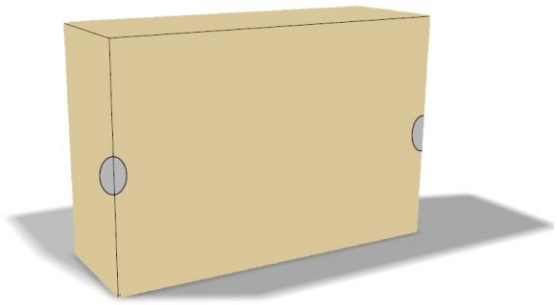
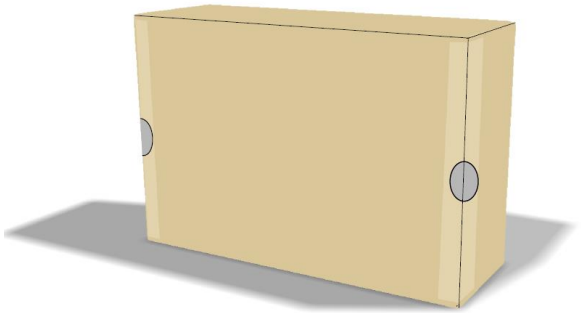
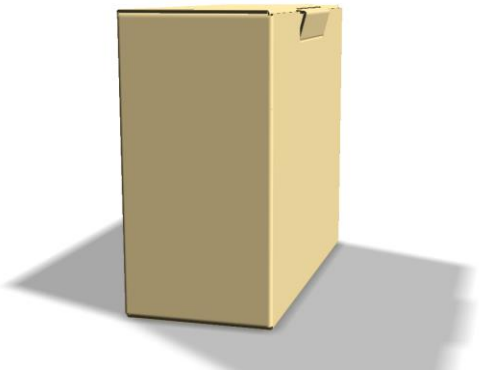




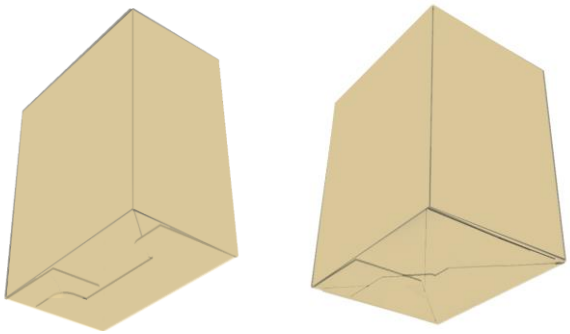
Problem: Protruding tuck flap/tab
(may be from back side or top of box)

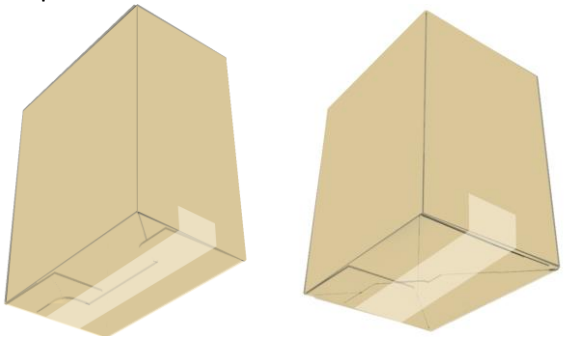
Action: Tuck flap to be tapped down along entire edge of box opening



Problem: Non-taped “123” or “Auto” bottom boxes

Action: “123” and “Auto” bottom boxes must be tapped across the bottom of the box as depicted.





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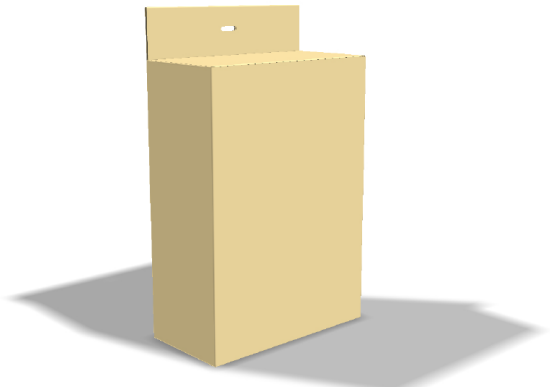
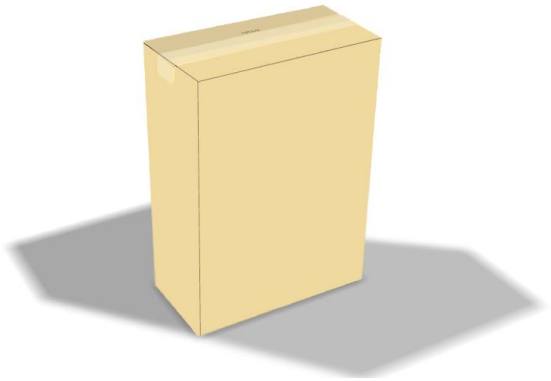
Protrusions

This failure mode is identified during initial visual inspection of SIOC candidates. A protrusion is any exterior package feature that extends beyond one of the 6 flat sides of the box. Typically, these package features are designed for brick and mortar display (ex. hang tabs) and/or customer utility (built in handles)[1]. These features are not compatible with single package flow in our FCs nor with our carriers. Ideally this feature is removed by our manufacturers from the design all together. However, acceptable modifications include 1) the protrusion is taped down to be flush with the package surface; -or- 2) the protrusion (ex. Handle) is recessed in to the surface of the package AND sealed down.

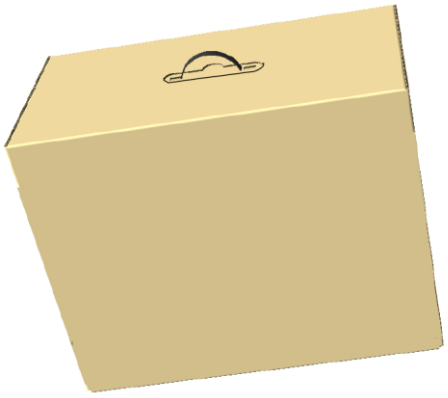
Problem: Protruding hang tab/feature (the center or top of box)



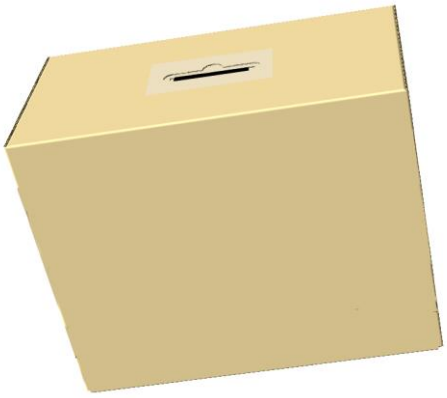
Action: Hang tab/feature to be tapped down or removed



Problem: Protruding handle feature



Action: Handle/feature to be tapped down down across top of box



[1] Note: Hand Hold Cut-outs are OK for SIOC

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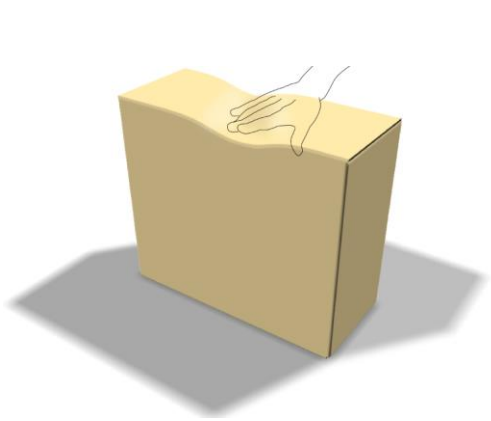
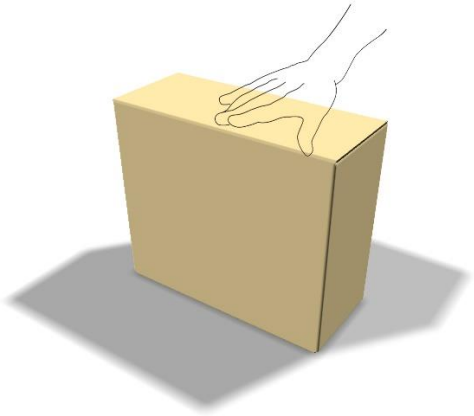
Box Deforms

This failure mode was identified during initial visual inspection of SIOC candidates and most often did not proceed to drop testing (and failed). While not a purely objective measurement, the tester deems the ASIN failed for Box Deforms if the side wall primary length edge of the package can be easily deformed under hand pressure. Additionally, if the package is already exhibiting visible deformation during initial inspection the package was assigned this improvement code. The manufacturer can solve this issue with an increase of corrugated/box thickness or board grade.

Problem: Packaging can or will deflect/deform/get damaged due to insufficient packaging materials;

Action: Increase the structural integrity of the package



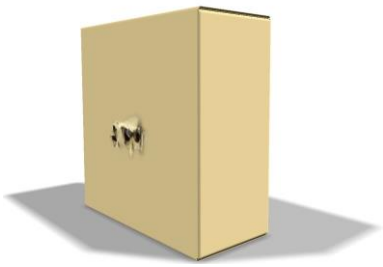


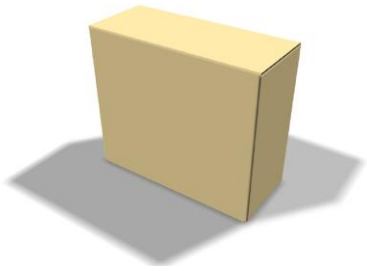
Carton Rupture/Puncture/Tear

This failure mode was identified during testing of SIOC candidates. If the box opened or an item was stuck out of the box, it was deemed to fail. The manufacturer can solve this issue with an increase of corrugated/box thickness or board grade.

Problem: Packaging is damaged (torn or has punctures/holes) partially or fully exposing product ; **Product should NOT be shipped SIOC**

Action: Increase the structural integrity of the package





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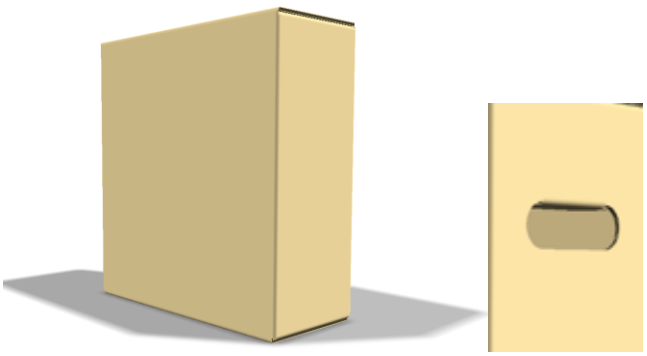
Cut-Outs/Exposed Product

This failure mode is assigned to items with cut-outs to display the product, however it is important to note that cut-outs for hand holds are OK. If your item has an improvement code that identified cut-outs and it is for hand holds, please send your item in so we can reclassify it. Long term action for product display cut-outs would be to design the items to reach SIOC/FFP by removing the cut-outs and placing the items in a sealed right sized six-sided box.

Problem: Packaging has partially or fully exposed product (plastic boxes and covering "unacceptable")

Action: Design the packaging to reach SIOC/FFP requirements by removing the cut-outs and placing the item in a sealed right sized six-sided box (hand holes are acceptable)



Not Six Sided

This improvement code was identified before testing of SIOC candidates. If the product does not come in a box, is currently in a poly bag, or has an irregular box shape, it is given this improvement code. Long term action would be to design the items to reach SIOC/FFP by placing the items in a sealed right sized six-sided box.

Problem: Not in a six sided box

Action: Place into a six-sided box. Additional internal structural support would be needed for a fragile/liquid product category.