



**Clip-Lok SimPak<sup>®</sup>**

LONDON, DSEi 2015

Katrine Skovbjerg

Test of box in Belgium at IBE-BVI

# Box tested

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- Box tested:
  - Standard OSB box with finger releasable plastic clips
  - Ext dimension: 1200x800x925mm (47.2x31.5x36.4 inches)
  - 18mm bottom, 11mm sides (0.7 and 0.4 inches)
  - 24 clips (2x2x2)
  - Weight: 45 kg (100 lbs)
  
- ASTM standard adapted to ISTA standards
  - Loaded with +500 kg (+1100 lbs)
  - Test order simulating general handling
  - Options of testing at three assurance levels I, II and III (I being toughest)
  - All test with assurance levels at or above ISTA standards

# Loading of box

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- 500 kg (1100 lbs)
- Bags of plastic pellets on all walls and bottom
- Cast iron weights in the core
- High pressure on sides from the start



# Test run

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- Forklift handling
  - Impact test at assurance level I: 1.75 m/s (5.75 ft/s)
    - One drop at all 4 sides
  - Rotational flat drop test at level I: 229 mm (9 inches)
    - One drop at all 4 sides
- Transportation on truck
  - Vibration test at level II (no log of value yet)
- Warehouse storage
  - Stacking test up to 6800 kg (~15000 lbs)
- Repeated forklift handling
  - Rotational flat drop test at level I: 229 mm (9 inches)
    - One drop at all 4 sides

## Footage from test

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Testing at IBE-BVI,  
Belgium



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Tolerances

# Preliminary comments on tolerances

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- Important dimensions for correct positioning of the clip
  - Thickness of residual material at rebate
    - Floating head is required
  - Relative distance and distance from the panel edge of the clip cuts.
  
- Dimensions of medium importance
  - Depth of clip cuts
    - +1/-1 mm, though more accurate results in better positioning of the clip
  - Diameter of cut
    - Lower limit will be established
  
- Less important dimensions.
  - Sideway positioning
    - Easy mounting event with misaligned clip cuts