






# Guidelines for using apple juice BIB packaging

## 1 - Storage, transport and shelf life of empty bags

- Empty Bags must be stored at room temperature, in a clean, dry and dust free area, packed in their original carton and closed.
- Keep bags away from sources of contamination, heat and direct sun.
- Optimal storage conditions are from 15 to 25°C and from 40 to 60% relative humidity.
- Unfilled empty bags can be stored during a short period from +4°C to +35°C maxi, but must be stored in ambient conditions 24 to 48h before use.
- Bags will be suitable for use 24 months from the date of production, provided that the storage and warehousing conditions detailed above are respected. We advice to use the First In/First Out (FIFO) inventory control system.
- If this time period is exceeded, contact Technical services of Smurfit Kappa Bag-in-Box prior to usage.
- To maintain the traceability, it is necessary to keep the data. 
- Palletization: stacking of pallets during transport and storage is not allowed.


## 2 – Hot filling conditions of bags

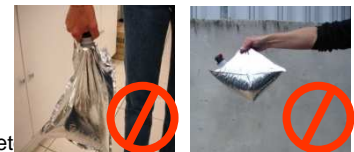
- The volume of the filled product must be in accordance with bag volume to guarantee proper bag performance.
- The EVOH transparent bags with Vitop tap (L45E70/amkF/VT-1) can be used for hot filling processes at temperatures up to 72°C.  
However, 'hot' filling must always be carefully processed to avoid any damage of the bag as the bag becomes soft at higher temperatures.
- The bag must be conveyed carefully into the box and not dropped aggressively.  
For example when lifting the bag from the filling table into the box, please make sure that the bag cannot be damaged on the box edges and that there is no rough handling. 
- Please also ensure that there is no sudden change in temperature which could also damage the bag.  
Finally, special precautions should be taken when cooling the product.
- We recommend that boxes of hot filled bags (35-72°C) be stored with the taps facing upwards to reduce bending of the glands.
- To facilitate the cooling down of the bags, keep the boxes opened after filling or allow enough space between boxes. 
- Hot bags should be manipulated with extra precaution.

*This information is given in good faith. We additionally recommend to all our clients that they carry out their own tests to ensure that they are fully satisfied with the suitability of the filling process, the packaging and the product*

The outer-packaging must be developed with the appropriate size of the bag : no head space must exist between the filled bag and its outer packaging .

## 3 – Bag handling advices

- No jewellery on hands and wrists.
- Nails should be short or else put on gloves.
- Put on protective clothing to cushion against cutting edges such as belt buckles, zippers, etc.
- Gentle handling of bags
- Don't throw the bags
- Work tables must be non abrasive and without sharp edges
- Bag to box transfer must be performed carefully, with no sharp edges in contact with the bag.
- After filling, it is recommended to store the pallet at least 48 hours so that leakage can be detected prior to shipment. 





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## 4 – Box Quality

- Creases should allow for proper erecting of the box as to run through a filling line and box sides should be correctly aligned

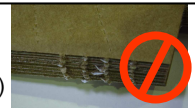
- Box dimensions (Lbx, Wbx, Hbx) must be defined relative to the bag dimensions (Lbg, Wbg) and should allow for an extra inside volume in comparison with the nominal volume of the BIB. Too little extra volume can result in box bulging and too much extra volume can increase flex cracking of the bag (general extra volume : around 0,5L).



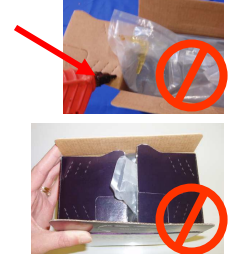
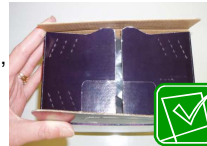
- There should be no sharp edges inside the box. For example, the top of box flaps should be kept fully opened and away from the bag during bag insertion.
- The glued edge (junction part) must be crushed and positioned on the edge (at the opposite side of the bag to box transfer)



- The internal paper must not be abrasive in order not to damage the films
- There should be no taste or smell contamination of the product by the box (due to inks, solvents, starch, ...)



- There should be no hot melt on the bag since once the melt is cold, it can create hard areas which could perforate the films.
- During the closing of the box, the film should not be folded between the box flaps.



## 5 - Transport conditions of filled bags

- Transport : product must be shipped at temperature above 4°C.
- The bag (films and taps) must be well adapted to transport conditions. Tests must be performed by the customer (to validate the adequation of the packaging with its transport conditions) prior to any industrial order, taking into account the type of transport, distance, temperature and humidity.

## 6 - Storage conditions of filled bags

(Optimum conditions : Temperature = [4 ; 25]°C Relative Humidity = [50 ; 70]%)

The shelf life of the product is depending of many factors and not only the packaging :

- The conditions of filling (size of the air cone reduced)
- The conditions of storage (between 1 and 25°C; average RH 70%)

Quality Improvement will be the result of a good partnership between the filling centre and the packaging supplier based upon good knowledge of filling conditions.



## 7 – Preparation of the apple juice

### 100% natural juice

To get a good quality product the juice has to be pressed, pasteurised and filled into the bag in good hygienic conditions.

No additive, no preservative, juice is keeping all organoleptic and nutritional properties.

### Ultra clean production

Bags are produced in a closed dedicated cabine with air conditioning and air filtration.

One way packaging avoiding washing and contamination risks.

Bags are not irradiated but hot filling process allows the sterilisation of the bag.