DESTINATION ZERO HUNGER

LNS Packaging Status
# Current RUF Primary Packaging Options

## Metalized Polyester
- Good sealing and machinability
- Metalized polyester reduces the risk of micro-cracking
- Oxygen permeability: 0.059 cc/100 sq. ins./24 hrs
- Water vapor permeability: 0.0465 gm/100 sq. ins./24 hrs

## Aluminum foil
- Expensive per linear foot
- Requires higher temperature to seal
- Rigidity leads to punctures and therefore leaks
- Oxygen permeability: <0.001 cc/100 sq. ins./24 hrs./atm; 73 F, 0% RH
- Water vapor permeability: <0.002 gm/100 sq. ins./24 hrs.; 100 F, 100% RH

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**Similar shelf life = 24 months**
Primary packaging – Baseline performances

PE sealing layer

Metallised OPET:12 μm ~ metallisation away from seallayer

Reverse printing adopted

OTR Range (23°C / 50% RH): 0.2 to 1.3 cc/m² day
WVTR (38°C / 90% RH): 0.15 to 0.9 g/m² day

Film polymers property stability in extreme conditions
Primary packaging: baseline issues

Wrinkles in sealing leading to product leakages

Poor ink resistance on printed BDDs

Film delamination
Primary packaging: Inconsistent tear notches

Tear notch not present always on all packagings
Tear notch not always indicated on packaging
Primary packaging – Moving forward

**Short / medium term**
- Performance based specifications established from baseline values
- Evaluation of these performances with CoAs and certificates
- Lots will be refused/asked to be sorted if lot code marking/BDD are not present

**Medium term**
- Pushing for reinforced leakages tests based on international standards ASTM F2338
- Optimization of the sealing layer
- Lots will be refused/asked to be sorted if lot code marking/BDD are fading

**Long term**
- Packaging performance optimization with trial of different OTR and MVTR
Secondary packaging—Baseline performances

Variable ECT from 5 to 9 kN/m < 11kN/m (60ECT) in specifications

Different structures (EB, BC, E + inner, ...)

White coated or plain board external paper
Secondary packaging – Moving forward

**Short / medium term**
- Harmonized performance based specifications with minimum values
- Evaluation of these performances with CoAs and certificates
- Lots will be refused/asked to be sorted if lot code marking/BDD are not present

**Medium term**
- Cost reduction: transition to brown instead of coated white
- Lots will be refused/asked to be sorted if lot code marking/BDD are fading

**Long term**
- Evaluate the removal of inner liners
Tertiary packaging – Moving forward

**Short / medium term**
- Implement pallet corners for all products sent in pallets
- Ask for column stacking of the 3 first layers of every stacks

**Medium term**
- Order full containers to preserve the lots in pallets

**Long term**
- Send every lot palletized
Labelling / Traceability
Labelling Harmonization

Language and translations harmonization

Texts / harmonization
Labelling / Traceability

Logos and instructions harmonization

Traceability

Barcloud
Why not real-time feedback?

Barcloud

Real time Feedback available

App for Field data collection

More cost-effective Food Aid

Data Analysis

R&D

- MNS
- Oxidation
- Infestation
- Bad stacking
- Food safety issues
- No gender sensitive
- Need for Rebagging
- Environmental issues
- Leakage
Thank you

10th Interagency Harmonization Meeting

Saving Lives
Changing Lives
Feeding Dreams