FICHE TECHNIQUE

Fish composite packaging materials

Composite packaging (combination of cardboard and polyethylene)

Composite packaging is packaging that combines the advantages of different materials (CCAT, 2017). Due to the different advantages and disadvantages of each package, the complementary properties of each material will be combined to design an effective package (CCAT, 2017). For example, by using cardboard, a renewable resource is used, but the lack of water tightness is a problem. Therefore, the cardboard will be combined with plastic, which has good sealing properties (CCAT, 2017).

Polyethylene is therefore the most common plastic used as a raw material in several manufacturing fields. Still called polythene (generic acronym PE), it is one of the simplest and least expensive polymers (BOZEC, 2010). It belongs to the polyolefin family (BOZEC, 2010). Its name comes from the fact that it is obtained by polymerization of ethylene monomers (CH2 = CH2) into a complex structure of generic formula: - (CH2 - CH2)n - It is the leading polymer in terms of market share in packaging (BOZEC, 2010). Its world production was about 40 million tons in 2003 (BOZEC, 2010) ... But for longer distribution channels, products must be preserved in conditions that generally require the use of packaging that will ensure 7 functions, namely preserving the quality of the food; - preventing microbiological risk; - preserving the integrity of the package and its contents; - preventing chemical risk; - preserving the environment; - meeting the technical and economic requirements of the manufacturer and user of the package; - interacting and communicating with the consumer (STAA, 2018). Beyond the required technological characteristics of the packaging, it is imperative to take into consideration the following criteria: - economic/cost criteria - marketing criteria (packaging that sells!) - legislative criteria (guaranteeing the safety of the food product) - environmental criteria (energy, rejection, recycling) (GAGNON, 2020).

Technology features

- Increase revenue by 25%.
- Reduce fish losses by 50%.
- Extend the shelf life of fish products
- Improve marketability
- Eliminate pest and insect infestation
- Potential to increase farmers' profits by 40%.
- Capable of maintaining fish quality for six months
- Can reduce fish losses due to pest infestation, dirt and dust to zero

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