ABSTRACT

Fish finger are processed fishery product which kept under frozen after the processing. Imported lean fish blocks of fillets, are use for the production where as cod fish is the main ingredient. The fish block contents only 18.39% total solids, which includes 0.06% crude fat, 0.89% ash and 17.44% organic non fat. (ONF).

The fish blocks are cut into fish fingers of 74mm length, 22.5mm width and 9-10 mm height. Then the fish fingers are pre-dusted, coated with batter, followed by breading and fried in vegetable oil at the temperature of 170-180 ^{0}C for 21/2-31/2 minutes. Ultimately the products are packed for frozen distribution. The final product consists of 43.3% total solids, which includes 6.0% crude fat, 2.5% ash and 35% ONF. The increment of total solids are due to adulterants during processing.

During frozen storage the products were undergone to different chemical and microbial changes. Finally the organoloptic quality was detected. The microbial growth was not significant, because under frozen condition microbial growth was largely inhibited. Some may kill during freezing, some may survive but not multiply. The moisture loss was the main problem. So the products were dehydrated.

Then the product gets chalky and fibrous texture and discoloration of the product. During freezing the solids get concentrated specially inorganic salt. Cause direct damage to the proteins. The proteins get de-naturated and results toughness. Ultimately all these changes affects to the organoloptic quality of the product.

Thawing and frozen product and subsequently re-freezing influence its quality, where as refrozen products deteriorate more rapidly than singly frozen products. When handling the product during delivery and due to power failures frozen products can be allowed to thaw for some period of time and re-frozen. When it thaw the temperature is good enough re-contaminate the product and multiply the organisms survive during freezing. Also the drip loss is more significant than in singly frozen products. Ultimately product is judged to be more tough, dry, rancid and fibrous. Finally the shelf life is significantly reduced in re-frozen products than singly frozen products.

Therefore imply extra care when handling frozen fish fingers. The product has to frozen singly. Intermitted thawing should have to be avoided.