

Masterbatch Liquid Absorber

It is a common experience in countries where the sale of portioned meat is widespread, through large-scale distribution, to purchase it in typically Polystyrene trays, more recently in PET, PP, ..

For both economic reasons and related to the lesser use of plastic materials, these trays are generally made from polymers that have been "expanded", that is, they have a cellular structure that considerably reduces their density.

However, these trays, being made of plastic material, present a particular problem, they are unable to absorb the water and blood normally released from the meat. Consequently, the liquids that leave the meat collect on the bottom of the tray and after a certain time the meat remains partially immersed in its own liquids, compromising its correct conservation.

To overcome this problem, several solutions have been devised:

- 1) the deposition on the bottom of the trays of a layer of absorbent material, typically cellulose.
 - 2) the trays themselves are formed by sandwiches of expanded / absorbent / expanded polymer.
- In the latter case, the layer of expanded polymer which constitutes the internal base of the tray is perforated to form a communication path towards the intermediate absorbent layer.

Both this procedure and the previous one solve the problem, but they are expensive.

Using the products described in the attached sheets, an expanded polymer with modified cells is obtained which allows liquids to infiltrate the cavities of the tray, thus reducing the problem of accumulation of liquids in direct contact with the meat and consequently increasing the storage time.

The products described are available in the form of masterbatches to be added to the polymer used during the expansion process of the polymer chosen for the production of the trays.