



ecobiopolymerpackaging

WheyLayer[®]



There are growing market demands for environmentally friendly, high quality, high performance packaging products.

Currently, conventional multi-layer materials are effective for packaging but are difficult to recycle, which has considerable environmental consequences. Now there is a solution: **WHEYLAYER**, a new bio-polymer for food packaging.

Food packaging must prevent oxidation to protect against the development of off-flavours, discolouration and nutrient loss in products. . Current synthetic films, such as PE, are excellent moisture barriers but need to be combined with other synthetic polymers or copolymers, such as EVOH, to provide the required oxygen barrier. The resulting multilayer films are difficult to recycle since these layers cannot be separated, leading to a large amount of waste. **WHEYLAYER**, an alternative packaging coating using whey protein as an oxygen and humidity barrier, is being investigated to overcome the shortcomings of existing barriers.



Whey protein is a natural by-product of cheese manufacturing. Resulting coatings have excellent oxygen barrier properties which are equivalent to those of petroleum-based counterparts, while being less moisture dependent. Test results to date have proved **WHEYLAYER** is a potential substitute for expensive copolymers currently used in food packaging. Moreover, **WHEYLAYER** is easier to break down for recycling, thus reducing scrap and making packaging more environmentally friendly.

There are other advantages to this new packaging solution.

it is envisaged that the incorporation of antimicrobial and antioxidant compounds into **WHEYLAYER** packaging will extend the shelf life of foodstuffs and decrease the speed of rancidity.





WHEYLAYER uses a natural by-product to improve the recyclability and quality of packaging, making it good for cheese-makers, good for packaging, good for consumers and good for the environment. It's a win-win scenario.

WHEYLAYER is a real breakthrough for SMEs from the packaging and food industries. It will go a long way toward boosting their competitiveness by helping them meet market demands for quality environmentally friendly products.

Biopolymers
for food packaging

www.wheylayer.eu



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