

PROTECTION YOU CAN TRUST™ NATURAL CHEESE RIPENING IN FOIL

Pack-Age™ – an innovative ready-to-use packaging solution for the natural ripening of cheese

The cycling heroes of yesteryear used to stuff newspapers under their tops to protect them from the wind and freezing temperatures. In stark contrast, today's professional cyclists wear high-tech clothing featuring breathable membranes and wind stoppers. DSM, the global life sciences and materials sciences company, has adapted this high-tech clothing technology to the world of cheese, and has developed Pack-Age™, a revolutionary new cheese ripening solution that not only offers complete protection to all your favorite cheeses, but also allows them to ripen to the perfect flavour and texture.

There are two conventional processes for the ripening of hard to semi-hard cheeses. The most traditional way, known as 'natural ripening', involves air-drying the cheeses during ripening, and applying a coating to protect them from external factors. The other process, used to obtain young cheese, involves packing the cheese in a seal-tight foil straight after brining. This foil-packed cheese has a typical flat taste, and is soft and rindless.

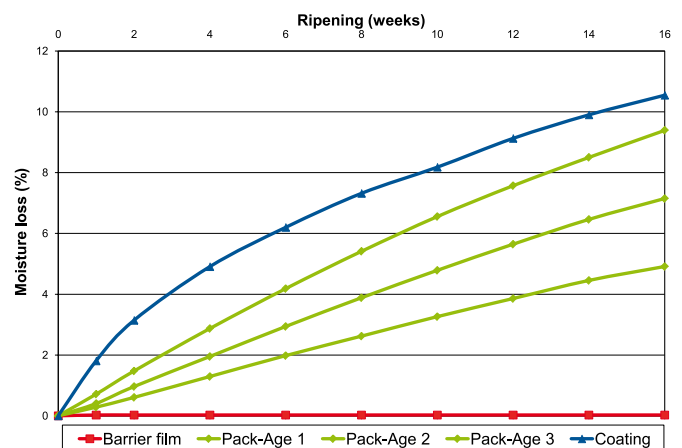
With Pack-Age™ – the newly developed packaging solution for ripening cheese – you can now ripen your cheese 'naturally' in a foil. The packaging foil is moisture-permeable, so cheeses can still dry in air as they do in the natural ripening process. When combined with Delvocid® (a natural mould and yeast inhibitor) the selective gas permeability of the packaging offers the best possible protection against yeast and mould growth.

NATURAL RIPENING IN PACK-AGE™ FOIL

DSM's Pack-Age™ cheese-ripening solution can be used to ripen semi-hard to hard cheeses and obtain a natural taste, texture and dry rind. The food-contact-approved ripening solution is based upon the perm-selectivity of the polymer structure, which enables



complete control of the moisture level and the gases passing through. As the packaging is moisture-permeable, during ripening the cheese will dry as natural ripened cheeses would, and its taste, texture and dry rind will all develop in a similar way. When applied to Gouda cheese, the new packaging has resulted in moisture loss falling by as much as 50% (see graph below). Its polymer blend and layer structure can be fine-tuned to obtain the best possible naturally ripened cheese.



Moisture loss during cheese ripening (Gouda Example)



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PACK-AGE™ BAGS: A RIPENED FLAVOUR AND NATURAL TEXTURE AT A HIGHER YIELD

During ripening, each cheese develops its own particular balance in flavour and texture. A comparative tasting session at NIZO¹⁾ proved that DSM's Pack-Age™ cheese-ripening bags can still provide this balance even with a 50% reduction in moisture loss. The texture of the cheese ripened in the Pack-Age™ bags was about the same as that of naturally ripened cheese. As far as the overall flavour was concerned, Pack-Age™ ripened cheese closely followed the naturally ripened cheese. The foil-ripened cheese finished bottom of the pile.

GREATER PROTECTION: PACK-AGE™ WITH DELVOCID®

When treated just once with Delvolid®, the Pack-Age™ ripening foil provides superior protection against mould and yeast growth.

EASY TO USE

DSM's Pack-Age™ cheese-ripening foil can be applied either in the form of a ready-to-use vacuum bag, or as a roll-fed thermoform solution. Both options can be tailor-made to meet your specific needs (e.g. size, degree of permeability, printing, and the like). Another advantage of DSM's new ripening solution is that the rind does not need to be removed prior to slicing and grating, saving time and increasing productivity.

LESS PACKAGING MATERIAL FOR RIPENING CHEESE

The relatively low weight of the Pack-Age™ cheese-ripening foil means that you can reduce your packaging weight in the ripening process by up to 50%.

NEW CHEESE VARIETIES, AND GREATER CHEESE QUALITY

Pack-Age™ can be fine-tuned to meet your own specific needs, and thus enable you to produce a variety of new and outstanding cheeses. This revolutionary, ready-to-use packaging will be all you need to set unprecedented cheese-ripening standards. So what are you waiting for? Contact us and we will introduce the cheese-ripening techniques of the future in your company, today.

UNLIMITED EXPERIENCE

With over a century of experience under its belt, DSM is in the perfect position to offer unparalleled expertise in a variety of sectors, from the production and application of effective preservation solutions (through its DSM Food Specialties division – a pioneer in natamycin-based products), to materials for barrier and specialty

films for the packaging industry (through its DSM Engineering Plastics division). DSM Specialty Packaging's Pack-Age™ cheese-ripening solution offers the best possible combination of value, cheese taste and texture, and preservation quality.



THE KEY FEATURES OF PACK-AGE™ FOIL:

- optimal cheese value (higher yields, reduced operational costs)
- ripened flavour and natural dry rind
- about the same texture as that of naturally ripened cheese
- with Delvolid®, greater protection against yeasts and mould
- minimal amount of packaging material used
- opportunities to develop new and outstanding cheeses

For more information:

DSM Specialty Packaging

PO Box 1163
6160 BD Geleen
The Netherlands
Corstiaan Hooft
Telephone: +31 (0)46 4763408
E-mail: corstiaan.hooft@dsm.com

DSM Food Specialties

E-mail: info.food@dsm.com
www.ProtectionYouCanTrust.com

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