

VIDOPECTINE®

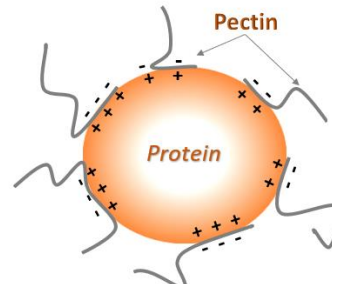


Cup Yogurts

Stirred Yogurts & Set Yogurts

**Fermented milk products with live organisms.
Low Methylester Amidated Pectin for yogurts (e.g. VIDOPECTINE DA 3065
or equivalent) to improve texture and save on milk solids**

No fat or low-fat yogurt often lack mouth-feel and stability. The most common defect is whey separation, which is difficult to overcome as the yogurt curd is very sensitive to changes. The charge of the milk protein changes from negative to positive during fermentation/acidification.

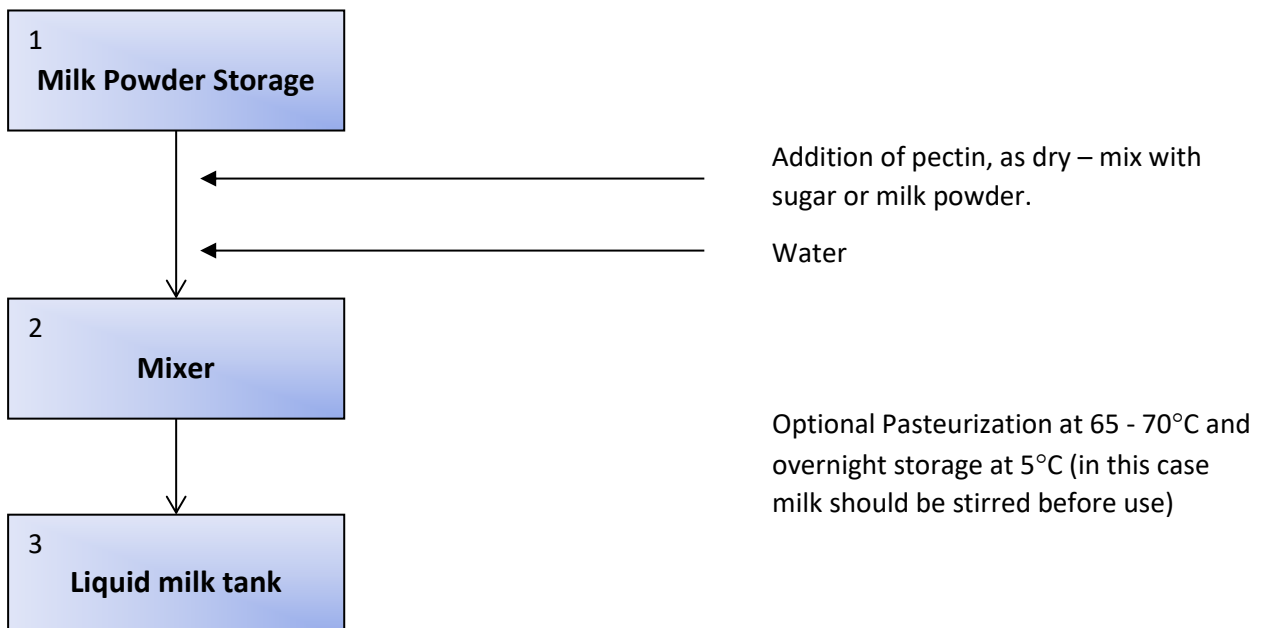


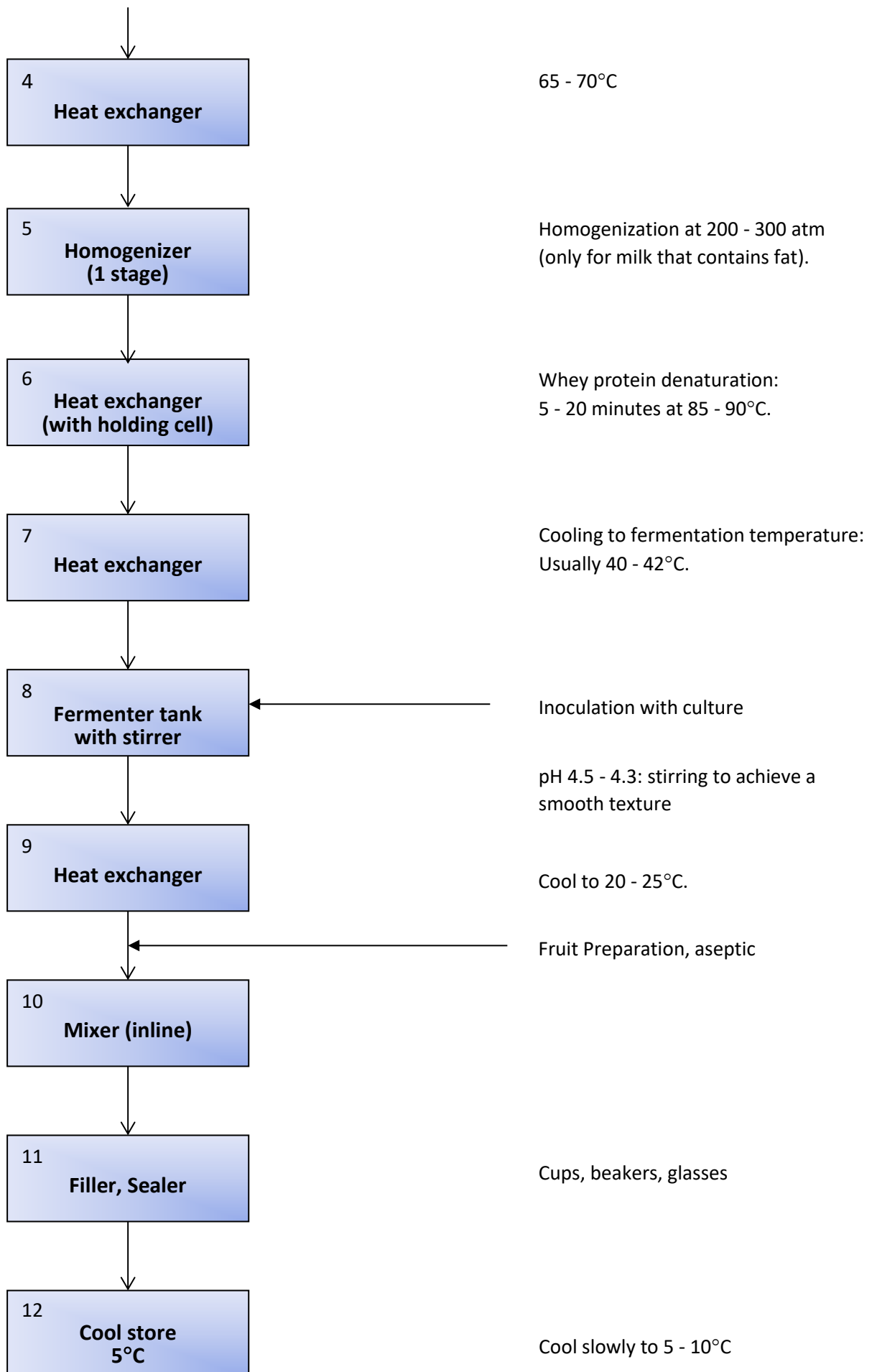
Low methylester amidated pectin is suitable (if permitted) to improve the texture of fermented cup yogurts and can replace milk powder often added for this reason, without a negative impact on mouth-feel and texture. The pectin should be added before fermentation, and there are no changes in the process necessary.

The general understanding of the functionality of the pectin is that it reduces the charge on the casein particles, which increases the adhesion between them and leads to higher viscosity. Thus, as with gelatin or starch, the functionality is not seen as a gelation / thickening of the water phase.

Low methylester amidated pectins retain more viscosity at higher temperatures (e.g. at 15°C instead of 5°) compared with extra milk solids added. They are also suitable for set yogurts.

Flow chart of Yogurt Production (e.g. from milk powder)





Notes

1. Pectin is best added right at the start of the process, mixed with sugar or milk powder. No adjustments in the process are necessary.
2. Correct dosage: 0.10 – 0.25% of pectin on the finished product. Higher dosages may lead to a sandy texture due to the over-reaction with calcium. The viscosity and body of the yogurt increase with increasing pectin dosage.
3. Often, extra MSNF (SMP) is added to increase the mouth-feel further; this adds to the viscosity created by LM pectin ⇒ 0.20 % have a similar effect as 2% MSNF. Sodium Caseinate can be used instead of SMP, of course.
4. Gelatin, modified starch, or gums can be combined with LM pectin for a more gelled or thicker texture and glossy appearance. These ingredients can be added together with the pectin into the milk.
5. Milk fat, of course, contributes significantly to the texture of the yogurt.
6. Optional heating after step 2 may cause the pectin to gel and form a layer at the bottom of the tank. Therefore the milk must be stirred before further processing. The gelation is without influence on the performance of the pectin.
7. Whey protein denaturation by heating before fermentation (step 6) is very important and helpful for achieving a uniform texture and a higher viscosity of the finished yogurt. Different heat treatment programs (temperature / holding time) are possible to achieve the desired 90 – 99% denaturation level.
8. Fruit preparations also contribute to the viscosity of fruit yogurt. Usual addition rates are 10 – 20% fruit preparation.
9. The recommended slow cooling from the mixing and filling temperature of 20 - 22°C to the storage temperature of 10 - 5° helps the texture development of the yogurt and should not be underestimated. The casein particles are separated during mixing, pumping and filling, and can agglomerate again during cooling. This is more efficient at higher temperatures (20 – 10°C), which is why this temperature range should be passed through slowly.
10. A combination of Vidopectine DA 3065 with agar is another possibility to modify the stability, texture and mouth-feel further. A combined dosage of 0.25% at a blend ratio of 4 + 1 (0.20% VIDOPECTINE DA 3065 + 0.05% agar with hydration temperature of 85°C) has proven to give the best results.

Product Suitability

The information and advice contained in this document are provided by UNIPEKTIN Ingredients AG as a courtesy only and is intended to be general. Any uses suggested in this brochure are presented only to assist our customers in exploring possible applications.

UNIPEKTIN Ingredients AG makes no warranty on its accuracy or completeness or the results obtained from such information.

It is in the interest of the customer and user to determine whether our products are suitable for the intended use and if they do comply with all applicable laws and regulations valid for the food industry in their country and also observe all third-party rights



Know-How and Experience



UNIPEKTIN Ingredients AG

Bahnhofstrasse 9
8264 Eschenz
Switzerland

Tel.: +41 52 742 3131

Fax: +41 52 742 3132

Email: info@unipektin.ch

Visit our website at
www.unipektin.ch

VIDOPECTINE®