



Project

Production of Feta cheese in (Tetra Pack, Buckets, Tubs) With Fuchs L.C Products

Liquid Control:

Application: chilled & convenience foods.

Product description: thermal decontamination in the manufacture of pastes & liquid spices.

The Items:

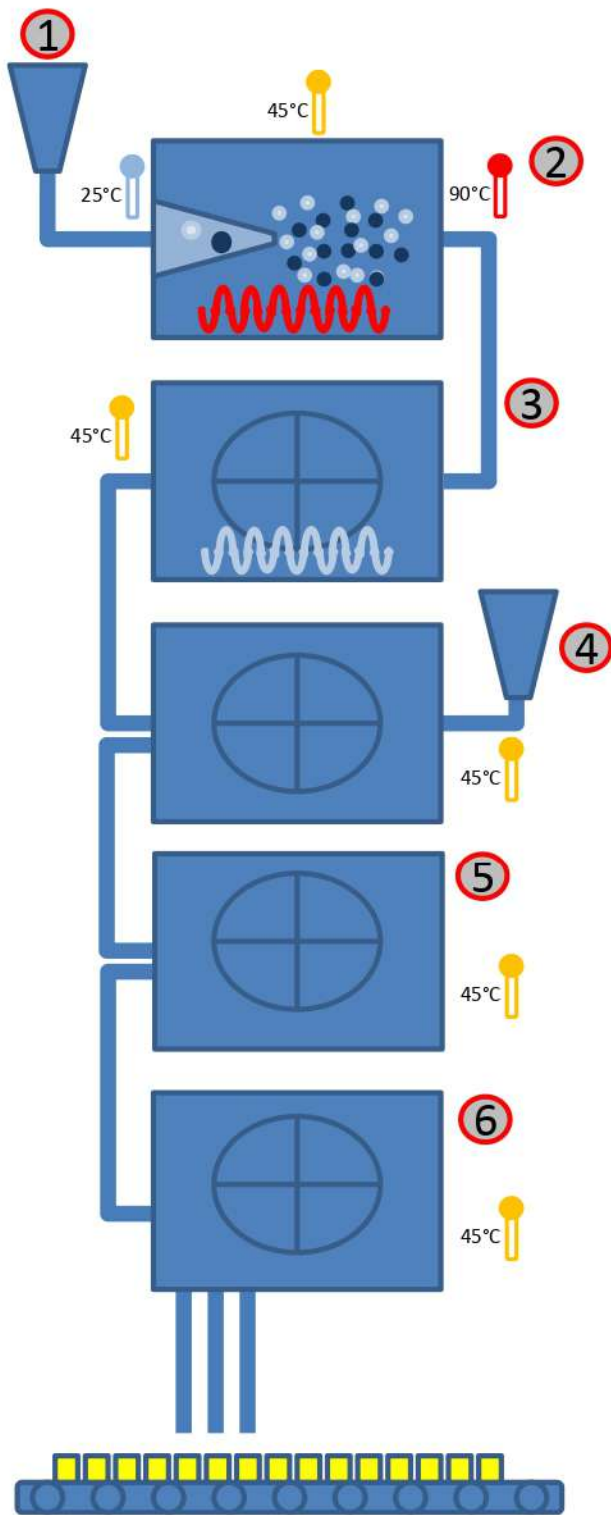
L.C .Black Olive.

L.C. Jalapeno Red.

L.C. Jalapeno Red / Green.

L.C. Jalapeno Red / Green Plus.

L.C. Jalapeno Green.



① Milk-base:
62% creamy milk (fat content >30%),
8% milkpowder,
30% water

② Homogenisation and heating up to 90°C

③ Cooling down to max. 45°C

④ Blending/Mixing: work conform to the sequence!

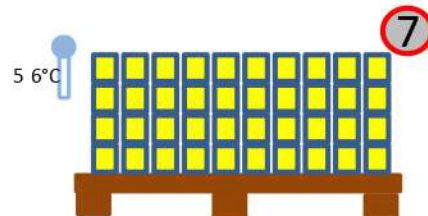
1) Add a blend of app. 2% salt and 0,35% 0,5% stabilizer for processed cheese 03/97164 → fast mixing till mass becomes high viscous and stabilizer is completely solved

2.) Add app. 1,5 % LC product – slow mixing for short time to homogenize the mass

3.) Add 2 % GDL (powder) fast mixing

⑤ Storage container
→ product remains up to 2 hours before filling

⑥ Filling process



⑦ Storage at 5 – 6 °C till cheese solidifys
→ up to 4 days

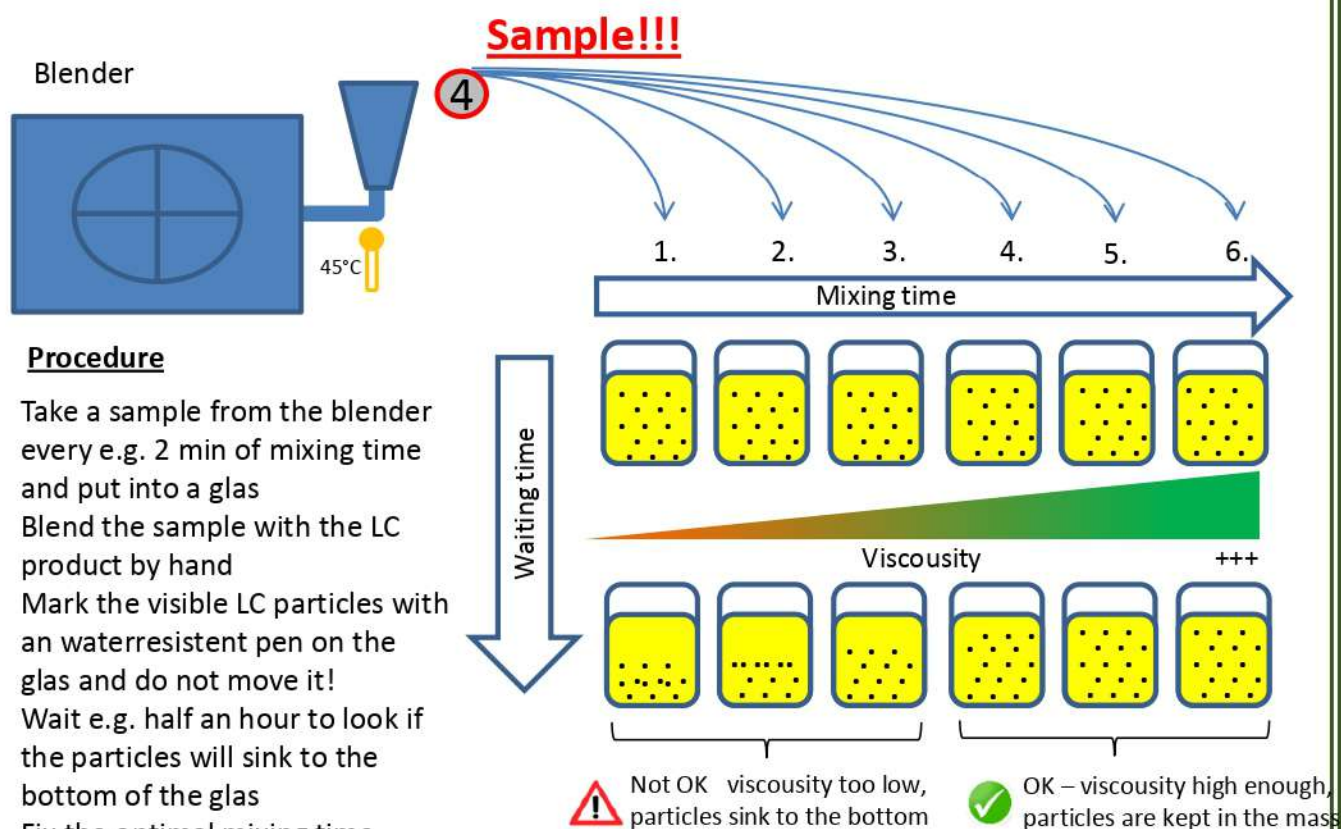
Important notes for optimized stabilization of processed cheese

- Do not change the sequence of process steps
- Add sour ingredients at least (LC and GDL)
Follow the mixing and blending parameters each time
Avoid loss of *stabilizer for processed cheese (dev. no. 03/97163)* caused by adhering on the machinery parts
- Do not combine several thickening agents
- Longer mixing of *stabilizer for processed cheese (dev.-no.03/97164)* with higher speed causes a higher viscosity

Recommendation to set the optimal blending and mixing time for *stabilizer for processed cheese (dev.-no. 03/97164)*

Take 0,40 % *stabilizer for processed cheese (dev. no. 03/97164)* counted on the milk mass and blend with the salt before adding during the mixing process to the milk mass

- The stabilizer must be solved completely!



Procedure

1. Take a sample from the blender every e.g. 2 min of mixing time and put into a glass
2. Blend the sample with the LC product by hand
3. Mark the visible LC particles with a waterresistent pen on the glass and do not move it!
4. Wait e.g. half an hour to look if the particles will sink to the bottom of the glass
5. Fix the optimal mixing time
6. **If the longest time of mixing that is profitable is not enough to increase the viscositiy, add more of the *stabilizer for processed cheese (dev.-no. 03/97164)* and restart the test**

Remark: The optimal mixing time in this case/sample is at 18 min, beacuse longer mixing causes a higher viscosity but it is not needed to keep the particles inside the mass and you also have safety (16 18min) if the quality of the cheese (fat and protein) will differ a bit.

1- Annexed: Recipes of 3 formulas for different percentage of protein

1-Recipe of protein 5.5 %

Raw	Specs.	%
Skimmed milk powder	Protein 32-34%	10
Milk protein concentrate 70%	Protein 70 %	3.2
Vegetable oil(palm oil-shortening)	Melting point 34-40 c	27
Stabilizer compound	Set texture	****
Salt		3
GDL		2
Rennet dry		0.0005
Calcium colride		0.03
Water		59.5

2- Recipe of protein 4.5 %

Raw	Specs.	%
Skimmed milk powder	Protein 32-34%	9.5
Milk protein concentrate 70%	Protein 70 %	2
Vegetable oil(palm oil-shortening)	Melting point 34-40 c	27
Stabilizer compound	Set texture	****
Salt		3
GDL		2
Rennet dry		0.0005
Calcium colride		0.03
Water		60.5

3- Recipe of protein 3.5 %

Raw	Specs.	%
Skimmed milk powder	Protein 32-34%	10.25
Milk protein concentrate 70%	Protein 70 %	-----
Vegetable oil(palm oil-shortening)	Melting point 34-40 c	28
Stabilizer compound	Set texture	****
Salt		3
GDL		2
Rennet dry		0.0005
Calcium colride		0.03
Water		61

2- Process and technology:

1- Mix all powder ingredients in mixer or liquefier has 3000 rpm with warm water at 50-60 c.



2- Homogenisation, and heating up to 90 c at 100 bar.



3- Cooling down to max 45 c.

4- Blending / Mixing: work conform to the sequence.

a) Add a blend of app 2 % salt and 0, 34%-0, 5% STABILIZER (Art. No. 03/97164) for processed cheese fast mixing till mass becomes high viscous and stabilizer is completely solved.



b) Add app 1, 5 %LC product – slow mixing for short time to homogenize the mass.



c) Add 2% GDL (power) – fast mixing .

5 – Storage Container Product remains up to 2 hours before filling.

6-Filling process.



7- Storage at 5 – 6 c till cheese solidifys up to 4 days.

8 – Final Product

03/97168 LC Jalapeno Red / Green

03/97167 LC Jalapeno Red



LC Jalapeno Green



03/97169 LC Black Olive

