

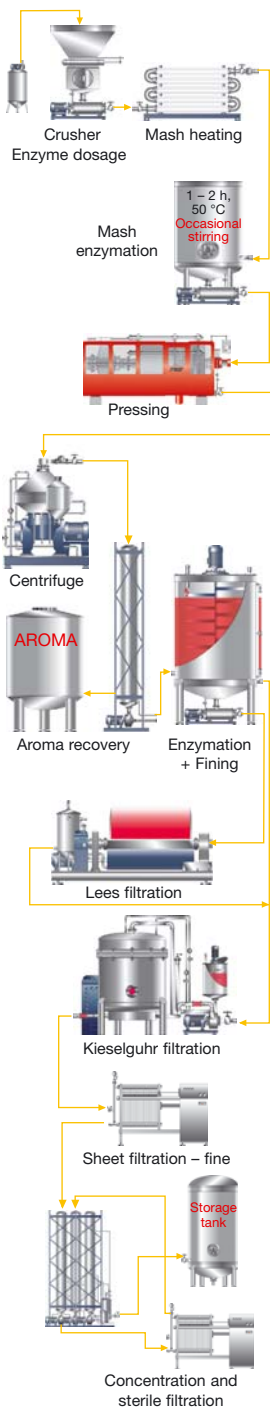
Fruit Juice Guide





Stone Fruit

Process steps



Production of concentrate from sour cherries, blank

Raw ingredients:

Ripe and sound, fresh or frozen fruit
Thawing of frozen fruit
Mash heating to 60 – 70 °C
Possibly mechanical stone removal

Mash enzyme dosage:

No mash enzymation due to low pectin content and in order to avoid stability problems.

No mash maceration time.

The press should be filled continuous in order to prevent stones from settling in the mash tank.

Juice extraction

Using a press or decanter (only mash from fruit without stones). For belt presses increase thickness of non-destoned mash.

Pectin removal: approx. 1 – 2 h at 50 – 55 °C

Panzym Pro Color: 20 – 50 ml/t or
Panzym BE XXL: 15 – 30 ml/t
For increased filterability:
Panzym Flux: 10 – 30 ml/t
Check via alcohol test

Fining: 2 – 4 h at 50 – 55 °C

SIHA PURANIT/SIHA PURANIT UF: 500 – 1000 g/t
Gelatin Fine Granules: 50 – 100 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

BECO KD 10/BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of semi-concentrate (35 – 40 Brix) at 70 – 80 °C with BECO SD 30/BECOPAD 270 depth filter sheets
Flow: 500 l/m² h

Production of concentrate from plums, blank

Raw ingredients:

Ripe and sound, fresh or frozen fruit
Thawing of frozen fruit
Mash heating to 50 – 55 °C
Possibly mechanical stone removal

Mash enzyme dosage:

Panzym Pro Color: 100 – 150 ml/t or
Panzym BE XXL: 80 – 120 ml/t

Mash enzymation:

1 – 2 h at 50 – 55 °C
Occasional stirring

Juice extraction

Using a press or decanter (only mash from fruit without stones). For belt presses increase thickness of non-destoned mash.

Pectin removal: approx. 1 – 2 h at 50 – 55 °C

Panzym Pro Color: 50 – 80 ml/t or
Panzym BE XXL: 30 – 60 ml/t
For increased filterability:
Panzym Flux: 10 – 30 ml/t
Check via alcohol test

Fining: 2 – 4 h at 50 – 55 °C

SIHA PURANIT/SIHA PURANIT UF: 500 g/t
Gelatin Fine Granules: 50 – 100 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

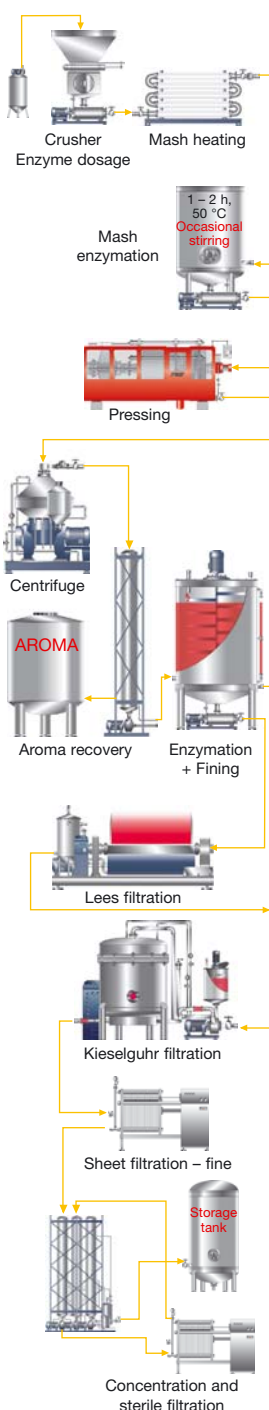
BECO KD 10/BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of semi-concentrate (35 – 40 Brix) at 70 – 80 °C with BECO SD 30/BECOPAD 270 depth filter sheets
Flow: 500 l/m² h

Soft Fruit

Process steps



Production of concentrate from strawberries, blank

Raw ingredients:

Ripe and sound, fresh or frozen fruit
Thawing of frozen fruit
Mash heating to 50 – 55 °C or cold enzyming at approx. 20 °C to protect the color

Mash enzyme dosage:

Panzym Pro Color: 50 – 80 ml/t or
Panzym BE XXL: 30 – 50 ml/t
For frozen fruit, the dosages may have to be increased significantly. For cold enzyming, the dosages should be doubled.

Mash enzymation:

1 – 2 h at 50 – 55 °C or
2 – 4 h at 20 °C
Occasional stirring

Juice extraction

Using a press or decanter

Pectin removal:

approx. 1 – 2 h at 50 – 55 °C
Panzym Pro Color: 20 – 50 ml/t or
Panzym BE XXL: 15 – 30 ml/t
For increased filterability:
Panzym Flux: 10 – 30 ml/t
Check via alcohol test

Fining:

2 – 4 h at 50 – 55 °C
SIHA PURANIT/SIHA PURANIT UF: 500 g/t
Gelatin Fine Granules: 50 – 100 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %) or
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

BECO KD 10/BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of semi-concentrate (35 – 40 Brix) at 70 – 80 °C with BECO SD 30/BECOPAD 270 depth filter sheets
Flow: 500 l/m² h

Production of concentrate from raspberries, blank

Raw ingredients:

Ripe and sound, fresh or frozen fruit
Thawing of frozen fruit
Mash heating to 50 – 55 °C

Mash enzyme dosage:

Panzym Pro Color: 60 – 120 ml/t or
Panzym BE XXL: 50 – 100 ml/t
For frozen fruit, the dosages may have to be increased significantly.

Mash enzymation:

1 – 2 h at 50 – 55 °C
Occasional stirring

Juice extraction

Using a press or decanter

Pectin removal:

approx. 1 – 2 h at 50 – 55 °C
Panzym Pro Color: 20 – 50 ml/t or
Panzym BE XXL: 15 – 30 ml/t
For increased filterability:
Panzym Flux: 10 – 30 ml/t
Check via alcohol test

Fining:

2 – 4 h at 50 – 55 °C
SIHA PURANIT/SIHA PURANIT UF: 500 g/t
Gelatin Fine Granules: 50 – 100 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %) or
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

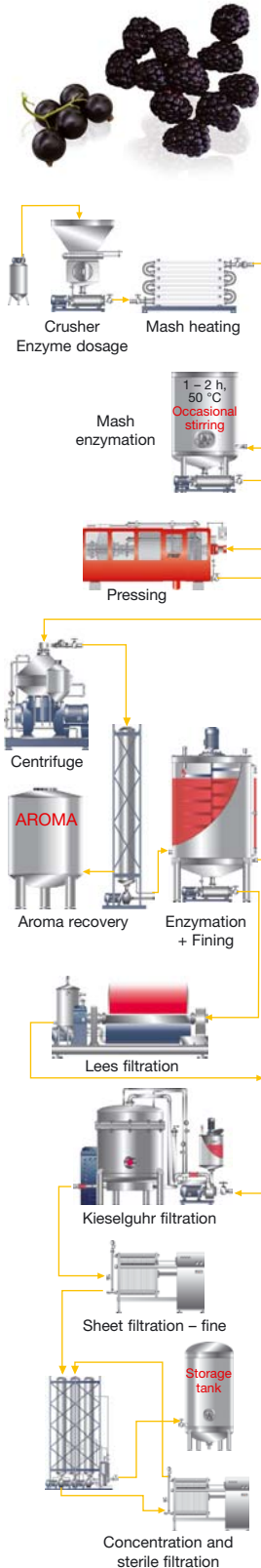
BECO KD 10/BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of semi-concentrate (35 – 40 Brix) at 70 – 80 °C with BECO SD 30/BECOPAD 270 depth filter sheets
Flow: 500 l/m² h

Soft Fruit

Process steps



Production of concentrate from blackcurrants

Raw ingredients:

Ripe and sound, fresh or frozen fruit
Thawing of frozen fruit
Mash heating to 45 – 50 °C

Mash enzyme dosage:

Panzym Pro Color: 100 – 200 ml/t or
Panzym BE XXL: 80 – 160 ml/t

For frozen fruit, the dosages may have to be increased significantly.

Mash enzymation:

1 – 2 h at 45 – 50 °C
Occasional stirring

Juice extraction

Using a press or decanter

Pectin removal:

approx. 1 – 2 h at 50 – 55 °C
Panzym Pro Color: 30 – 60 ml/t or
Panzym BE XXL: 20 – 40 ml/t
For increased filterability:
Panzym Flux: 10 – 30 ml/t
Check via alcohol test

Fining:

2 – 4 h at 50 – 55 °C
SIHA PURANIT/SIHA PURANIT UF: 500 – 1000 g/t
Gelatin Fine Granules: 100 – 200 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

BECO KD 10/BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of
semi-concentrate (35 – 40 Brix) at 70 – 80 °C with
BECO SD 30/BECOPAD 270
depth filter sheets
Flow: 500 l/m² h

Production of concentrate from blackberries, blank

Raw ingredients:

Ripe and sound, fresh or frozen fruit
Thawing of frozen fruit
Mash heating to 50 – 55 °C

Mash enzyme dosage:

Panzym Pro Color: 80 – 160 ml/t or
Panzym BE XXL: 60 – 120 ml/t

For frozen fruit, the dosages may have to be increased significantly.

Mash enzymation:

1 – 2 h at 50 – 55 °C
Occasional stirring

Juice extraction

Using a press or decanter

Pectin removal:

approx. 1 – 2 h at 50 – 55 °C
Panzym Pro Color: 20 – 50 ml/t or
Panzym BE XXL: 15 – 30 ml/t
For increased filterability:
Panzym Flux: 10 – 30 ml/t
Check via alcohol test

Fining:

2 – 4 h at 50 – 55 °C
SIHA PURANIT/SIHA PURANIT UF: 500 – 1000 g/t
Gelatin Fine Granules: 100 – 200 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

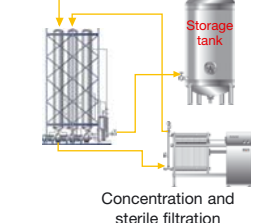
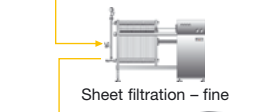
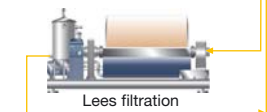
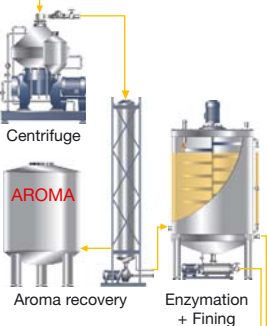
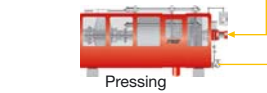
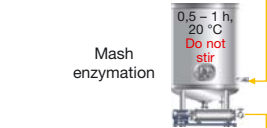
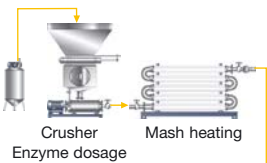
BECO KD 10/BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of
semi-concentrate (35 – 40 Brix) at 70 – 80 °C with
BECO SD 30/BECOPAD 270
depth filter sheets
Flow: 500 l/m² h

Pomaceous Fruit

Process steps



Production of AJC with hot clarification + sterile filtration

Raw ingredients:
Sound, washed

Mash enzyme dosage:
Panzym First Yield: 70 – 100 ml/t or
Panzym YieldMASH: 50 – 70 ml/t

Mash enzymation at approx. 20 °C without stirring
Bucher press: 0.5 – 1 h
Belt press: 1 h
Decanter: 1 h

Juice extraction possibly with secondary extraction
pomace/water ratio = 1:0.5 – 1

Starch degradation: approx. 1 h at 50 – 55 °C
Panzym HT 300: 20 – 60 ml/t or
Panzym AG XXL: 10 – 30 ml/t
Check via iodine test

Pectin removal: approx. 1 h at 50 – 55 °C
Panzym Pro Clear: 10 – 30 ml/t or
Panzym XXL: 10 – 30 ml/t
Check via alcohol test

Fining: 2 – 4 h at 50 – 55 °C
SIHA PURANIT/SIHA PURANIT UF: 1000 g/t
Gelatin Fine Granules: 100 – 200 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with
BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with
BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with
BECO KDS 12/BECOPAD 350
Flow: 1000 l/m² h

Concentration with
simultaneous sterile and polishing filtration of
semi-concentrate (35 – 40 Brix) at 70 – 80 °C with
BECO SD 30/BECOPAD 270 depth filter sheets
Flow: 500 l/m² h

Production of clear apple juice with cold clarification

Raw ingredients:
Sound, washed

Mash enzyme dosage:
Panzym First Yield: 70 – 100 ml/t or
Panzym YieldMASH: 50 – 70 ml/t

Mash enzymation at approx. 20 °C without stirring
Bucher press: 0.5 – 1 h
Belt press: 1 h
Decanter: 1 h

Juice extraction possibly with secondary extraction
pomace/water ratio = 1:0.5 – 1

Without previous aroma recovery
Starch degradation: approx. 4 h at approx. 20 °C
Panzym F2: 50 – 150 ml/t
Check via iodine test

Pectin removal: approx. 4 h at approx. 20 °C
Panzym Pro Clear: 10 – 30 ml/t or
Panzym XXL: 10 – 30 ml/t
Check via alcohol test

Fining: 6 – 8 h at approx. 20 °C
SIHA Ca-Bentonit G: 1000 g/t
Gelatin Fine Granules: 100 – 300 g/t
BEVASIL® 30: 300 – 900 ml/t

Lees filtration with
BECOLITE 5000
Dosage: 5 – 7 kg/m²

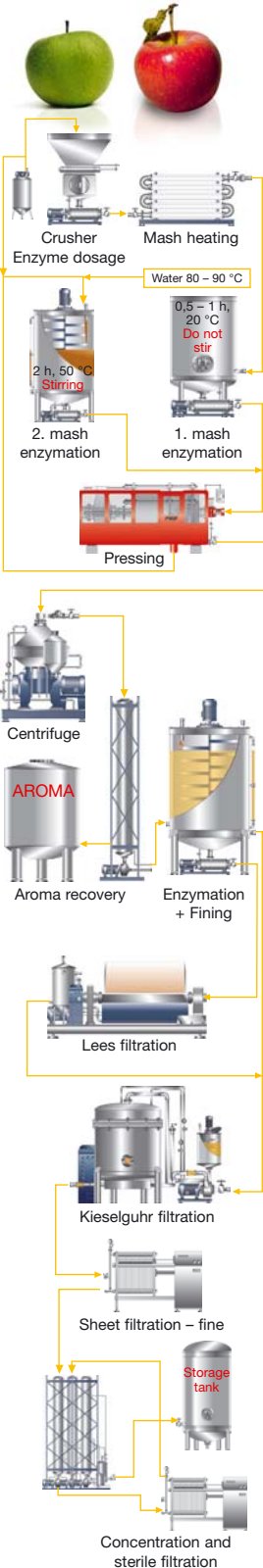
Kieselguhr filtration with
BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with
BECO KDS 12/BECOPAD 350
Flow: 1000 l/m² h

Storage or bottling

Pomaceous Fruit

Process steps



Yield increase through 2. mash enzymation

Raw ingredients:

1 part pomace from 1. pressing
+ 0.6 – 1 part (depending on first yield from 60 - 80 %) demineralized water at 80 – 90 °C

Mash enzyme dosage, depending on first yield:

Panzym Second Yield
a) 80 % yield: 250 - 500 ml/t pomace
b) 70 % yield: 160 - 380 ml/t pomace
c) 60 % yield: 120 - 240 ml/t pomace

2. mash enzymation tenure:

1.5 – 2 h at 50 – 55 °C
With vigorous stirring

Juice extraction

Using a press or decanter
possibly followed by blending of 1. juice and 2. juice

Starch degradation: approx. 1 h at 50 – 55 °C

Panzym HT 300: 20 – 60 ml/t or
Panzym AG XXL: 10 – 30 ml/t
Check via iodine test

Pectin removal: approx. 1 h at 50 – 55 °C

Panzym Pro Clear: 10 – 30 ml/t or
Panzym XXL: 10 – 30 ml/t
Check via alcohol test

Fining: 2 – 4 h at 50 – 55 °C

SIHA PURANIT/SIHA PURANIT UF: 1000 g/t
Gelatin Fine Granules: 100 – 200 g/t
BEVASIL® 30: 500 – 1000 ml/t

Lees filtration with

BECOLITE 5000
Dosage: 5 – 7 kg/m²

Kieselguhr filtration with

BECOGUR 200 (approx. 10 %)
BECOGUR 3500 (approx. 90 %)
Dosage: approx. 1 – 1.2 kg/t

Sheet filtration – fine with

BECO KDS 12 / BECOPAD 350
Flow: 1000 l/m² h

Concentration with

simultaneous sterile and polishing filtration of semi-concentrate (35 – 40 Brix) at 70 – 80 °C with BECO SD 30/BECOPAD 270 depth filter sheets
Flow: 500 l/m² h

Production of naturally cloudy apple juice

Raw ingredients:

Fully ripe (low starch content), sound and washed

Mash enzyme dosage:

Panzym YieldMASH: 30 – 50 ml/t
Panzym First Yield: 40 - 60 ml/t

Mash enzymation:

0.5 – 1 h at approx. 20 °C
Without stirring

Juice extraction

Using a press or decanter

Vitamin C dosage: 200 – 400 g/t

directly into the buffer tank

Removal of instable solids via centrifuge

Early pasteurization without long intermediate storage

Storage or filling

If no centrifuge was used for the removal of instable solids, the juice should be drawn off the coarse unfiltrate sediment in the storage tank prior to bottling.

All information is given to the best of our knowledge.

They reflect current know-how and do not claim to be complete.

No warranty is expressed or implied.

The application of our products outside the test criteria specified in the technical information requires separate verification by the customer. In such cases, no liability for any damage whatsoever can be accepted. Further detailed information can be found in the respective technical information sheets, instruction manuals and user notes. Misuse of the product will result in all warranties being voided, including any third-party commercial property rights.

Subject to change in the interest of technical progress.



E. Begerow GmbH & Co.

An den Nahewiesen 24

55450 Langenlonsheim

Germany

Fon: +49 6704 204-0

Fax: +49 6704 204-121

www.begerow.com

info@begerow.com