MILKY FES

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **42**
- SRM **40.7**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **32.4 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	5 kg *(59.5%)*	80 %	5
Grain	Monachijski typ II	2 kg *(23.8%)*	80 %	20
Sugar	Laktoza	0.5 kg *(6%)*	76.1 %	0
Grain	Carafa Special II	0.5 kg *(6%)*	70 %	1050
Grain	Carafa Special III	0.4 kg *(4.8%)*	70 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zeus	50 g	60 min	11.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis