

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 |