

## BAD

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **4.5**
- Style **Vienna Lager**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

### Steps

- Temp **50 C**, Time **20 min**
- Temp **66 C**, Time **45 min**

### Mash step by step

- Heat up **14.7 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **45 min** at **66C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	3.7 kg (75.5%)	81 %	4
Grain	Weyermann - Carapils	0.6 kg (12.2%)	78 %	4
Grain	Monachijski typ II 20-25 EBC Weyermann	0.6 kg (12.2%)	80 %	20

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	30 g	60 min	7 %
Boil	Tradition	10 g	20 min	5.5 %
Aroma (end of boil)	Tradition	20 g	5 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11 g	Fermentis Division of S.I.Lesaffre