

BAD

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **22**
- SRM **4.5**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **12.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.3 liter(s)**
- Total mash volume **9.8 liter(s)**

Steps

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

Mash step by step

- Heat up **7.3 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **45 min** at **66C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **12.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------------|-----------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 1.85 kg (75.5%) | 81 % | 4 |
| Grain | Weyermann - Carapils | 0.3 kg (12.2%) | 78 % | 4 |
| Grain | Monachijski typ II 20-25 EBC Weyermann | 0.3 kg (12.2%) | 80 % | 20 |

Hops

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

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|-------|------|--------|------------------------------------|
| Saflager S-23 | Lager | Dry | 5.5 g | Fermentis Division of S.I.Lesaffre |