

Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **3.7**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **23.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 3.2 kg (91.4%) | 82 % | 4 |
| Grain | Monachijski | 0.3 kg (8.6%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Saaz (Czech Republic) | 20 g | 60 min | 4.7 % |
| Boil | Sladek | 20 g | 15 min | 7.6 % |
| Aroma (end of boil) | Sladek | 10 g | 0 min | 7.7 % |
| Aroma (end of boil) | Saaz (Czech Republic) | 10 g | 0 min | 4.5 % |