

Pils

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **33**
- SRM **3.9**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **65 C**, Time **70 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------|---------------|-------|-----|
| Grain | Pilzneński | 5 kg (96.2%) | 81 % | 4 |
| Grain | Caramel Pale | 0.2 kg (3.8%) | 77 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil | lunga | 10 g | 30 min | 11 % |
| Boil | lunga | 40 g | 15 min | 11 % |
| Boil | Amora Preta | 100 g | 0 min | 11.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------|------|--------|--------|------------|
| OYL-091 | Ale | Liquid | 1 ml | Omega |