

Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **36 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **73C**
- Keep mash **1 min** at **78C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **36 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 7 kg (100%) | 81 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------------------|--------|--------|------------|
| Boil | Hallertau Tradition | 15 g | 60 min | 5 % |
| Boil | Lublin (Lubelski) | 15 g | 60 min | 5 % |
| Boil | Hallertau Tradition | 15 g | 15 min | 5 % |
| Boil | Lublin (Lubelski) | 15 g | 15 min | 5 % |
| Whirlpool | Hallertau Tradition | 20 g | 15 min | 5 % |
| Whirlpool | Lublin (Lubelski) | 20 g | 15 min | 5 % |
| Boil | Marynka | 10 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry | 23 g | Fermentis |