

gruby_pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **49**
- SRM **3.1**
- Style **Bohemian Pilsener**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **51 C**, Time **15 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|-------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 4 kg (100%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Challenger | 20 g | 45 min | 6.1 % |
| Boil | Marynka | 10 g | 45 min | 8 % |
| Boil | Lublin (Lubelski) | 50 g | 15 min | 3.7 % |
| Boil | Challenger | 30 g | 15 min | 6.1 % |
| Boil | Lublin (Lubelski) | 50 g | 5 min | 3.7 % |
| Boil | Challenger | 50 g | 5 min | 6.1 % |