

warka 48

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **19**
- SRM **3.9**
- Style **Bohemian Pilsener**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	lager hook	4.5 kg (76.3%)	78 %	3.5
Grain	Briess - Pale Ale Malt	1 kg (16.9%)	80 %	7
Grain	Briess - Wheat Malt, White	0.2 kg (3.4%)	85 %	5
Grain	Oats, Flaked	0.2 kg (3.4%)	80 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (USA)	40 g	45 min	3.75 %
Boil	Mosaic	20 g	7 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	Safale