

## Pale Ale #3

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **26**
- SRM **4.1**
- Style **Blonde Ale**

### 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 **15 %/h**
- Boil size **29.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (88.9%)	82 %	4
Grain	Carahell	0.5 kg (11.1%)	77 %	26

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	8.2 %
Whirlpool	Fuggles	90 g	0 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Slant	200 ml	Fermentis