

## Pale Ale

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- Gravity **12.1 BLG**
- ABV ---
- IBU **52**
- SRM **6.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.2 kg (80%)	85 %	7
Grain	Weyermann - Light Munich Malt	0.8 kg (20%)	82 %	14

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Phoenix	30 g	60 min	11 %
Boil	Progress	40 g	10 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	20 g	Safale