

Pale Ale #1

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **22**
- SRM **6.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.8 kg (90.5%)	85 %	7
Grain	Carahell	0.2 kg (4.8%)	77 %	26
Grain	Briess - Caracrysal Wheat Malt	0.2 kg (4.8%)	78 %	108

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pioneer	20 g	55 min	8.8 %
Boil	Epic	10 g	10 min	4.1 %
Aroma (end of boil)	Pioneer	10 g	0 min	8.8 %
Aroma (end of boil)	Epic	20 g	0 min	4.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale