

Pale Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **35**
- SRM **3.7**
- Style **American Amber Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsen	5 kg (95.2%)	80.5 %	4
Grain	Cara Blonde - Castle Malting	0.25 kg (4.8%)	78 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	60 min	17.4 %
Aroma (end of boil)	Amarillo	8 g	5 min	17.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis