

Apa 30l

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **48**
- SRM **8.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **38.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **30 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	7 kg (86.4%)	80 %	8
Grain	Cara Blonde - Castle Malting	0.7 kg (8.6%)	78 %	20
Grain	Crystal 150	0.4 kg (4.9%)	72 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	50 g	60 min	9.5 %
Boil	Cascade	25 g	20 min	6 %
Boil	Citra	25 g	10 min	12 %
Dry Hop	Citra	50 g	3 day(s)	12 %
Dry Hop	Centennial	50 g	3 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis