

APA

- Gravity **13.3 BLG**
- ABV ---
- IBU **51**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	4.4 kg (93.6%)	80 %	8
Grain	Caramel pils	0.3 kg (6.4%)	75 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	10 %
Boil	Citra	20 g	15 min	12 %
Boil	Willamette	15 g	5 min	5 %
Aroma (end of boil)	Citra	30 g	3 min	12 %
Aroma (end of boil)	Centennial	20 g	0 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	11 g	---