

APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **67 C**, Time **90 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurope Pale Ale malt	5 kg (100%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	90 min	10 %
Aroma (end of boil)	Cascade PL	50 g	5 min	5.5 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	WHIRLFLOC	1 g	Boil	15 min