

## APA centennial

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **22**
- SRM **3.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **12.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **8 liter(s)**
- Total mash volume **10 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **8 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **77C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **12.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (100%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Centennial	20 g	15 min	9.5 %
Whirlpool	Centennial	20 g	0 min	9.5 %
Dry Hop	Citra	24 g	3 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	4.6 g	Fermentis