

## NE APA

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **33**
- SRM **3.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **63 C**, Time **20 min**
- Temp **71 C**, Time **40 min**
- Temp **77 C**, Time **2 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **71C**
- Keep mash **2 min** at **77C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (63.9%)	80 %	5
Grain	Viking Wheat Malt	1 kg (21.3%)	83 %	5
Grain	Wheat, Flaked	0.19 kg (4%)	77 %	4
Grain	Oats, Flaked	0.255 kg (5.4%)	80 %	2
Grain	Weyermann - Carapils	0.25 kg (5.3%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Ekuanot	7 g	60 min	16.1 %
Boil	Simcoe	7 g	60 min	13.6 %
Boil	Ekuanot	5 g	10 min	16.1 %
Boil	Simcoe	5 g	10 min	13.6 %
Boil	Centennial	5 g	10 min	9.6 %
Aroma (end of boil)	Ekuanot	10 g	1 min	16.1 %
Aroma (end of boil)	Simcoe	10 g	1 min	13.6 %
Aroma (end of boil)	Centennial	10 g	1 min	9.6 %

Aroma (end of boil)	Citra	5 g	1 min	12 %
Dry Hop	Ekuanot	15 g	2 day(s)	16.1 %
Dry Hop	Simcoe	10 g	2 day(s)	13.6 %
Dry Hop	Centennial	20 g	2 day(s)	9.6 %
Dry Hop	Citra	20 g	2 day(s)	12 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Water Agent	kwask mlekowy	10 g	Boil	60 min