

## #13 APA 4 smaki + Tropical NEIPA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **35**
- SRM **5**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.03 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.2 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16 liter(s)** of strike water to **74.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Rahr - Premium Pilsner Malt	4 kg (75.9%)	80 %	4
Grain	Carabelge	0.25 kg (4.7%)	80 %	30
Grain	Monachijski	0.5 kg (9.5%)	80 %	16
Grain	Pszeniczny	0.2 kg (3.8%)	85 %	4
Grain	Płatki owsiane	0.3 kg (5.7%)	85 %	3
Grain	Caraaroma	0.02 kg (0.4%)	78 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	5 g	70 min	13.5 %
Boil	Amarillo	5 g	70 min	8.8 %
Boil	Amarillo	7 g	15 min	8.8 %
Boil	Centennial	5 g	15 min	9.4 %
Boil	Cascade	5 g	15 min	7.7 %
Boil	Citra	7 g	15 min	13.5 %
Boil	Amarillo	7 g	10 min	8.8 %
Boil	Centennial	10 g	10 min	9.4 %

Boil	Cascade	10 g	10 min	7.7 %
Boil	Citra	7 g	10 min	13.5 %
Boil	Amarillo	10 g	0 min	8.8 %
Boil	Centennial	10 g	0 min	9.4 %
Boil	Cascade	10 g	0 min	7.7 %
Boil	Citra	10 g	0 min	13.5 %

## Yeasts

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