

## #2 APA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **54**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.45 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.4 liter(s)**

### Steps

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

### Mash step by step

- Heat up **15 liter(s)** of strike water to **73.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3 kg (69%)	80 %	7
Grain	Carahell	0.2 kg (4.6%)	77 %	26
Grain	Strzegom Wiedeński	0.5 kg (11.5%)	79 %	10
Grain	Pszeniczny	0.65 kg (14.9%)	85 %	4

### 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	Cascade	5 g	20 min	7.7 %
Boil	Citra	5 g	20 min	13.5 %
Boil	Amarillo	5 g	20 min	8.8 %
Boil	Centennial	5 g	20 min	9.4 %
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	15 g	Fermentis