

## #19 APA SRAPA

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **38**
- SRM **5.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.63 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **21.1 liter(s)**

### Steps

- Temp **67 C**, Time **75 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.5C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.6 kg (79.1%)	80 %	7
Grain	Płatki owsiane	0.3 kg (6.6%)	85 %	3
Grain	Strzegom Pszeniczny	0.2 kg (4.4%)	81 %	6
Grain	Carabelge	0.2 kg (4.4%)	80 %	30
Grain	Monachijski	0.2 kg (4.4%)	80 %	16
Grain	Sauermalz	0.05 kg (1.1%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	15 g	60 min	14.1 %
Boil	Cascade	5 g	15 min	9 %
Boil	Citra	5 g	15 min	13.7 %
Boil	Amarillo	5 g	15 min	8.9 %
Boil	Cascade	5 g	5 min	9 %
Boil	Citra	5 g	5 min	13.7 %
Boil	Amarillo	5 g	5 min	8.9 %
Aroma (end of boil)	Cascade	5 g	0 min	9 %
Aroma (end of boil)	Citra	5 g	0 min	13.7 %

Aroma (end of boil)	Amarillo	5 g	0 min	8.9 %
Whirlpool	Cascade	15 g	0 min	9 %
Whirlpool	Centennial	15 g	0 min	10.6 %
Whirlpool	Citra	15 g	0 min	13.7 %
Whirlpool	Amarillo	15 g	0 min	8.9 %