

## 1st APA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **41**
- SRM **10.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **19.1 liter(s)**

### Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **50 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Wheat Malt	1.11 kg (23.3%)	83 %	10
Grain	Strzegom Karmel 300	0.33 kg (6.9%)	70 %	299
Grain	Viking Pale Ale malt	3.33 kg (69.8%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nelson Sauvín	20 g	15 min	11 %
Boil	Motueka	30 g	60 min	7 %
Boil	Wai-iti	10 g	60 min	4.1 %