

## apa

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **56**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **26.4 liter(s)**
- Total mash volume **33 liter(s)**

### Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **26.4 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.25 kg (64.4%)	80 %	7
Grain	Briess - Pilsen Malt	1.7 kg (25.8%)	80.5 %	2
Grain	Pszeniczny	0.65 kg (9.8%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	13 g	50 min	13 %
Boil	Simcoe	20 g	50 min	13.2 %
Aroma (end of boil)	Cascade	32 g	10 min	6 %
Aroma (end of boil)	Citra	38 g	10 min	12 %
Dry Hop	Cascade	30 g	2 day(s)	6 %
Dry Hop	Mosaic	35 g	2 day(s)	10 %
Dry Hop	Centennial	50 g	2 day(s)	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
fermentis	Ale	Dry	11 g	fermenstis