

# APA 2024

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- Gravity **0.3 BLG**
- ABV **0.1 %**
- IBU **2**
- SRM **0.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **800 liter(s)**
- Trub loss **8 %**
- Size with trub loss **864 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **1082.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **28.6 liter(s)**
- Total mash volume **33.8 liter(s)**

## Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **28.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **1059 liter(s)** of **76C** water or to achieve **1082.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (76.9%)	80 %	5
Grain	Pszeniczny	1 kg (19.2%)	85 %	4
Grain	Strzegom Karmel 150	0.2 kg (3.8%)	75 %	100

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	15 g	50 min	5.2 %
Boil	Mandarina Bavaria	15 g	30 min	10 %
Aroma (end of boil)	Cascade PL	10 g	10 min	5.2 %
Aroma (end of boil)	Mandarina Bavaria	35 g	10 min	10 %
Aroma (end of boil)	Citra	20 g	10 min	12 %
Whirlpool	Mandarina Bavaria	50 g	0 min	10 %
Whirlpool	Cascade PL	20 g	0 min	5.2 %
Whirlpool	Citra	30 g	0 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	23 g	---
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