

# APA2024

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **4**
- 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 **3.5 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Bestt Pale Ale	2.5 kg (52.1%)	80.5 %	6
Grain	Pszeniczny	1 kg (20.8%)	85 %	4
Grain	BESTMALZ - Best Pilsen	1.3 kg (27.1%)	80.5 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Azacca	10 g	60 min	14 %
Boil	Amarillo	15 g	15 min	9.5 %
Boil	Citra	15 g	10 min	13.5 %
Aroma (end of boil)	Mosaic	20 g	5 min	9.5 %
Aroma (end of boil)	Mandarina Bavaria	20 g	0 min	8.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis