

# APA

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- Gravity **13.2 BLG**
- ABV ---
- IBU **33**
- SRM **10.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (95.2%)	79 %	6
Grain	Cara Ruby Castle	0.15 kg (2.9%)	72 %	49
Grain	Caraaroma	0.1 kg (1.9%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	8 g	60 min	13.5 %
Boil	Citra	8 g	10 min	13.5 %
Boil	Amarillo	8 g	25 min	8.9 %
Boil	Cascade	8 g	25 min	7.7 %
Boil	Amarillo	10 g	10 min	8.9 %
Boil	Cascade	10 g	10 min	7.7 %
Boil	Cascade	10 g	2 min	7.7 %
Boil	Citra	10 g	2 min	13.5 %
Boil	Amarillo	10 g	2 min	8.9 %
Whirlpool	Citra	25 g	10 min	13.5 %
Whirlpool	Amarillo	25 g	---	9.5 %

Whirlpool	Cascade	25 g	---	6 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis