

# WHITE APA

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **39**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **2 %**
- Size with trub loss **26 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (61.5%)	82 %	4
Grain	Pszeniczny	2 kg (30.8%)	85 %	4
Grain	Carahell	0.5 kg (7.7%)	74 %	26

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Boil	Chinook	15 g	10 min	13 %
Boil	Cascade	30 g	10 min	6 %
Boil	Amarillo	30 g	10 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
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Spice	Skórka słodkiej pomarańczy	20 g	Boil	10 min
Spice	Skórka curacao	20 g	Boil	10 min
Spice	Kolendra	10 g	Boil	10 min