

# APA

- Gravity **12.4 BLG**
- ABV ---
- IBU **36**
- SRM **9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (90.9%)	79 %	6
Grain	Strzegom Karmel 150	0.25 kg (4.5%)	75 %	150
Grain	Pszeniczny	0.25 kg (4.5%)	79 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	60 min	13 %
Aroma (end of boil)	Centennial	15 g	15 min	10.5 %
Aroma (end of boil)	Cascade	15 g	5 min	6 %
Whirlpool	Cascade	20 g	30 min	6 %
Whirlpool	Centennial	20 g	30 min	10.5 %
Dry Hop	Centennial	15 g	5 day(s)	10.5 %
Dry Hop	Cascade	15 g	5 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	250 ml	Fermentis