

# Pine APA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **37**
- SRM **6**
- 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 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	5 kg (90.9%)	80 %	8
Grain	Monachijski	0.5 kg (9.1%)	80 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Izabella	50 g	60 min	5.1 %
Boil	Lomik	30 g	15 min	3.8 %
Boil	EXP 2/20	30 g	5 min	7.5 %
Dry Hop	Azacca	50 g	7 day(s)	14 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	30 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Flavor	Pędy sosny	500 g	Boil	15 min
Flavor	Gałęzie sosny	300 g	Mash	70 min