

# APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **62**
- SRM **3.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (92.6%)	80 %	5
Grain	Platki owsiane	0.4 kg (7.4%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Aroma (end of boil)	Citra	25 g	5 min	12 %
Whirlpool	Citra	25 g	30 min	12 %
Whirlpool	Simcoe	25 g	30 min	13.2 %
Dry Hop	Citra	50 g	3 day(s)	12 %
Dry Hop	Simcoe	25 g	3 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	200 ml	fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	9 g	Mash	60 min
Water Agent	Chlorek Wapnia	3 g	Mash	60 min