

# Warszawa - 15.09.2024

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **32**
- SRM **3.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **23.8 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	12.1 %
Boil	Citra	15 g	10 min	12.1 %
Aroma (end of boil)	Citra	20 g	1 min	12.1 %
Aroma (end of boil)	Chinook	20 g	1 min	12.1 %