

## Before The Start

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **40**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **30 %/h**
- Boil size **23 liter(s)**

### Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **66 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **23 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (41.7%)	80 %	5
Grain	Strzegom Pilzniejszy	2.8 kg (58.3%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Mosaic	40 g	5 min	10 %
Boil	Citra	60 g	2 min	12 %
Whirlpool	Chinook	10 g	0 min	13 %
Dry Hop	Citra	30 g	4 day(s)	12 %
Dry Hop	Mosaic	30 g	4 day(s)	10 %