

Apa

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **44**
- SRM **3.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **80 %**
- 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 **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (54.5%)	80 %	5
Grain	Pilznieński	2 kg (36.4%)	81 %	4
Grain	Pszeniczny	0.5 kg (9.1%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	50 min	10 %
Boil	Citra	20 g	30 min	12 %
Boil	Mosaic	20 g	10 min	10 %
Boil	Simcoe	20 g	5 min	13.2 %
Dry Hop	Citra	30 g	4 day(s)	12 %
Dry Hop	Simcoe	30 g	4 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Liquid	30 ml	White Labs