

# #1

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **90**
- SRM **36**
- Style **Black IPA**

## 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 **15 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Monachijski typ II 20-25 EBC Weyermann	1 kg (14.3%)	80 %	20
Grain	Fawcett - Pale Chocolate	0.5 kg (7.1%)	71 %	600
Grain	Carafa II	0.5 kg (7.1%)	70 %	812

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cenntenial	60 g	60 min	9.5 %
Boil	Cascade	60 g	30 min	6 %
Boil	Citra	30 g	10 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11.5 g	Fermentis Safale