

IPA

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **72**
- SRM **3.9**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **54 C**, Time **1 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **9 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **1 min** at **54C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (66.7%)	80 %	5
Grain	Pszeniczny	1 kg (33.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	30 g	50 min	9.5 %
Aroma (end of boil)	Amarillo	20 g	10 min	9.5 %
Aroma (end of boil)	Cascade	30 g	10 min	6 %
Whirlpool	Cascade	20 g	1 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	250 ml	Safale