

PANiPANI nie do bani

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **65**
- SRM **4.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 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 **72 C**, Time **10 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 **10 min** at **72C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (42.9%)	80 %	5
Grain	Viking Pilsner malt	1 kg (14.3%)	82 %	4
Grain	Viking Wheat Malt	3 kg (42.9%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	60 min	13.2 %
Boil	Amarillo	20 g	30 min	9.5 %
Boil	Mosaic	20 g	30 min	10 %
Boil	Simcoe	20 g	30 min	13.2 %
Boil	Mosaic	30 g	5 min	10 %
Whirlpool	Amarillo	50 g	5 min	9.5 %
Dry Hop	Simcoe	30 g	5 day(s)	13.2 %
Dry Hop	Amarillo	50 g	5 day(s)	9.5 %
Dry Hop	Mosaic	50 g	5 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
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us04	Ale	Slant	150 ml	---
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