

voodoo

- Gravity **15 BLG**
- ABV ---
- IBU **87**
- SRM **35.7**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

Steps

- Temp **68 C**, Time **80 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	7.5
Grain	Strzegom Wiedeński	1.2 kg (17.1%)	79 %	12
Grain	Carafa III	0.3 kg (4.3%)	70 %	1500
Grain	Strzegom Barwiący	0.3 kg (4.3%)	68 %	1300
Grain	Pszeniczny	0.2 kg (2.9%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	20 g	60 min	15 %
Boil	Equinox	20 g	60 min	14.6 %
Boil	Citra	20 g	30 min	12 %
Boil	Cascade	20 g	30 min	6 %
Boil	Citra	30 g	10 min	12 %
Boil	Cascade	35 g	5 min	6 %
Dry Hop	Citra	45 g	4 day(s)	12 %
Dry Hop	Amarillo	45 g	4 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	150 ml	---