Black ipa #2

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **45**
- SRM **34.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **70 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **15 min** at **70C**
- Keep mash **5 min** at **77C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.6 kg *(69.2%)*	80 %	5
Grain	Pszeniczny	0.6 kg *(11.5%)*	85 %	4
Grain	Weyermann - Dehusked Carafa III	0.5 kg *(9.6%)*	70 %	1024
na wysładzanie				
Grain	Barley, Flaked	0.3 kg *(5.8%)*	70 %	4
Sugar	Corn Sugar (Dextrose)	0.2 kg *(3.8%)*	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	30 g	60 min	9.5 %
Boil	Mosaic	20 g	10 min	10 %
Aroma (end of boil)	Amarillo	10 g	0 min	9.5 %
Aroma (end of boil)	Citra	50 g	0 min	12 %
75C-20				
Dry Hop	Amarillo	50 g	3 day(s)	9.5 %
Dry Hop	Citra	50 g	3 day(s)	12 %

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Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	---

Notes

- start od 15C - 17 do 20
  2,5 g glukozy na butelke
  Jan 15, 2019, 7:37 PM

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