

Black Whole - czyli black ipa

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **60**
- SRM **70.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (75%)	80 %	5
Grain	Strzegom Barwiący	1 kg (25%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	16 g	60 min	10 %
Aroma (end of boil)	Simcoe	15 g	10 min	13.2 %
Aroma (end of boil)	Centennial	15 g	10 min	10.5 %
Aroma (end of boil)	Ekuanot	20 g	10 min	14 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	12 g	Fermentis