

Black IPA

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **112**
- SRM **44.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.55 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **64 C**, Time **60 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) US	3.6 kg (54.1%)	79 %	4
Grain	Strzegom Monachijski typ II	2 kg (30.1%)	79 %	22
Grain	Weyermann Caramunich 3	0.3 kg (4.5%)	76 %	150
Grain	Strzegom Barwiący	0.3 kg (4.5%)	68 %	1300
Grain	Strzegom Czekoladowy ciemny	0.45 kg (6.8%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	30 g	60 min	13.2 %
Boil	Equinox	30 g	60 min	13.1 %
Boil	Warrior	30 g	30 min	15.5 %
Aroma (end of boil)	Citra	30 g	1 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---