black ipa

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **36**
- SRM **25.4**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.4 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(85.5%)*	80 %	5
Grain	Karmelowy Jasny 30EBC	0.3 kg *(5.1%)*	75 %	30
Grain	Strzegom Karmel 150	0.2 kg *(3.4%)*	75 %	150
Grain	Carafa II special	0.35 kg *(6%)*	70 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Columbus/Tomahawk/Zeus	15 g	60 min	15.5 %
Boil	Simcoe	10 g	10 min	13.2 %
Boil	Chinook	10 g	10 min	13 %
Whirlpool	Simcoe	15 g	1 min	13.2 %
Whirlpool	Chinook	15 g	1 min	13 %
Dry Hop	Simcoe	35 g	4 day(s)	13.2 %
Dry Hop	Chinook	35 g	4 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	4321 g	Fermentis