

Black

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **96**
- SRM **36.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.1 liter(s)**

Mash information

- Mash efficiency **63 %**
- Liquor-to-grist ratio **4.1 liter(s) / kg**
- Mash size **28.1 liter(s)**
- Total mash volume **34.9 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.75 kg (83.9%)	80 %	5
Grain	Strzegom Czekoladowy 400	0.5 kg (7.3%)	68 %	400
Grain	Chocolate Malt (US)	0.35 kg (5.1%)	60 %	690
Grain	Carafa II	0.25 kg (3.6%)	70 %	812

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bravo	30 g	60 min	13.9 %
Boil	Dr Rudi	30 g	20 min	11.3 %
Boil	Cascade	20 g	15 min	7.1 %
Boil	Simcoe	10 g	15 min	13.3 %
Boil	Cascade	40 g	5 min	7.1 %
Boil	Simcoe	20 g	5 min	13.3 %
Dry Hop	Cascade	40 g	4 day(s)	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis