

Czarne Pale Ale

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **85**
- SRM **28.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.3 kg (83.6%)	80 %	5
Grain	Strzegom Karmel 300	0.2 kg (7.3%)	70 %	299
Grain	Czekoladowy	0.15 kg (5.5%)	60 %	788
Grain	Carafa II	0.1 kg (3.6%)	70 %	812

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bravo	10 g	60 min	15.5 %
Boil	El Dorado	10 g	20 min	15 %
Aroma (end of boil)	Sabro	20 g	10 min	15 %
Dry Hop	Sabro	50 g	7 day(s)	15 %
Aroma (end of boil)	Sabro	20 g	5 min	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	5 g	Fermentis