Czarne Ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **46**
- SRM **25.5**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.3 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **27.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg *(82%)*	82 %	4
Grain	Weyermann - Carafa II	0.5 kg *(8.2%)*	70 %	837
Grain	Weyermann - Caraamber	0.15 kg *(2.5%)*	75 %	65
Grain	Biscuit Malt	0.25 kg *(4.1%)*	79 %	45
Sugar	Brown Sugar, Dark	0.2 kg *(3.3%)*	100 %	99

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	25 g	60 min	10.5 %
Boil	Cascade	25 g	45 min	6 %
Boil	Willamette	25 g	15 min	5 %
Aroma (end of boil)	Cascade	25 g	0 min	6 %
Dry Hop	Cascade	50 g	4 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	120 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips Piwowarski	3 g	Mash	75 min

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.