

Black IPA

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **49**
- SRM **29.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **31.2 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (51.3%)	85 %	7
Grain	Pszeniczny- Viking Malt	1 kg (12.8%)	85 %	4
Grain	Monachijski Jasny - Viking Malt	1 kg (12.8%)	80 %	16
Grain	Wiedeński - Viking Malt	1 kg (12.8%)	79 %	10
Grain	Carafa (R) III - Weyermann	0.25 kg (3.2%)	--- %	1350
Grain	Karmelowy - - Viking Malt	0.25 kg (3.2%)	79 %	600
Grain	Płatki owsiane	0.2 kg (2.6%)	85 %	3
Grain	Jęczmień prażony	0.1 kg (1.3%)	55 %	900

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Agnus Cz	15 g	50 min	10.47 %
Boil	Agnus Cz	15 g	30 min	10.47 %
Boil	Citra USA	30 g	10 min	13.5 %
Boil	Cascade PL	30 g	10 min	5.5 %
Whirlpool	Citra USA	30 g	15 min	13.5 %
Whirlpool	Cascade PL	30 g	15 min	5.5 %
Dry Hop	Citra USA	20 g	4 day(s)	13.5 %
Dry Hop	Chinook PL	50 g	4 day(s)	5.2 %
Dry Hop	Agnus Cz	8 g	4 day(s)	10.47 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	270 ml	Fermentum Mobile
Starter na mieszadle 24 h				