

## black ipa

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **68**
- SRM **48**

### 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)**

### Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	ekstrakt słodowy ciemny Bruntal	1.7 kg (34.7%)	80 %	621
Liquid Extract	WES ekstrakt słodowy jasny	2 kg (40.8%)	80 %	30
Liquid Extract	Bruntal ekstrakt słodowy pszeniczny	1.2 kg (24.5%)	80 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Jarrylo	5 g	60 min	15 %
Boil	Jarrylo	10 g	45 min	15 %
Boil	Jarrylo	10 g	30 min	15 %
Boil	Jarrylo	14 g	15 min	15 %
Boil	Enigma (AUS)	5 g	15 min	16.5 %
Boil	Enigma (AUS)	5 g	10 min	16.5 %
Boil	Enigma (AUS)	5 g	5 min	16.5 %
Boil	Enigma (AUS)	10 g	0 min	17.2 %
Boil	Pekko	5 g	15 min	13.6 %
Boil	Pekko	5 g	10 min	13.6 %
Boil	Pekko	5 g	5 min	13.6 %
Boil	Pekko	10 g	0 min	13.5 %
Boil	T90	5 g	15 min	13.8 %
Boil	T90	5 g	10 min	13.8 %
Boil	T90	5 g	5 min	13.8 %
Boil	T90	10 g	0 min	13.8 %
Boil	HPA-035	5 g	15 min	8.1 %
Boil	HPA-035	5 g	10 min	8.1 %
Boil	HPA-035	5 g	5 min	8.1 %
Boil	HPA-035	10 g	0 min	8.1 %
Dry Hop	HPA-035	25 g	3 day(s)	8.1 %
Dry Hop	T90	25 g	3 day(s)	13.8 %

Dry Hop	Enigma (AUS)	25 g	3 day(s)	17.2 %
Dry Hop	Pekko	25 g	3 day(s)	13.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	12 g	Fermentis