

Black IPA #1

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **38**
- SRM **28.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **23.2 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **23.2 liter(s)** of strike water to **74.3C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (82%)	81 %	4
Grain	Pszeniczny	0.5 kg (8.2%)	85 %	4
Grain	Black (Patent) Malt	0.25 kg (4.1%)	55 %	985
Grain	Carafa III	0.35 kg (5.7%)	70 %	1034

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	20 g	60 min	6 %
Aroma (end of boil)	Cascade	20 g	10 min	6 %
Aroma (end of boil)	Calypso	20 g	10 min	13.5 %
Whirlpool	Cascade	20 g	20 min	6 %
Whirlpool	Calypso	30 g	20 min	13.5 %
Dry Hop	Cascade	40 g	4 day(s)	6 %
Dry Hop	Calypso	35 g	2 day(s)	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis