

Black IPA

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **67**
- SRM **29.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.3 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **13.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.11 kg (81%)	79 %	6
Grain	Strzegom Karmel 150	0.18 kg (4.7%)	75 %	150
Grain	Carahell	0.25 kg (6.5%)	77 %	26
Grain	Weyermann - Carafa III	0.3 kg (7.8%)	70 %	1024

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	60 min	13.2 %
Aroma (end of boil)	Simcoe	15 g	30 min	13.2 %
Aroma (end of boil)	Simcoe	10 g	10 min	13.2 %
Aroma (end of boil)	Amarillo	10 g	10 min	9.5 %
Aroma (end of boil)	Citra	10 g	10 min	12 %
Dry Hop	Simcoe	40 g	7 day(s)	13.2 %
Dry Hop	Amarillo	40 g	7 day(s)	9.5 %
Dry Hop	Citra	40 g	7 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	6.84 g	Fermentis