

Black IPA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **66**
- SRM **28.2**
- 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 **27.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

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

Mash step by step

- Heat up **21.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5.02 kg (81%)	79 %	6
Grain	Strzegom Karmel 150	0.29 kg (4.7%)	75 %	150
Grain	Carahell	0.4 kg (6.5%)	77 %	26
Grain	Weyermann - Carafa III	0.48 kg (7.8%)	70 %	1024

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	16.15 g	60 min	13.2 %
Aroma (end of boil)	Simcoe	24.23 g	30 min	13.2 %
Aroma (end of boil)	Simcoe	16.15 g	10 min	13.2 %
Aroma (end of boil)	Amarillo	16.15 g	10 min	9.5 %
Aroma (end of boil)	Citra	16.15 g	10 min	12 %
Dry Hop	Simcoe	64.62 g	7 day(s)	13.2 %
Dry Hop	Amarillo	64.62 g	7 day(s)	9.5 %
Dry Hop	Citra	64.62 g	7 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.05 g	Fermentis