

Black IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **67**
- SRM **28.7**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **64 C**, Time **75 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **75 min** at **64C**
- Keep mash **15 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilzneński Malteurop	5 kg (75.8%)	80 %	5
Grain	Karmelowy Jasny 20-30EBC optima	0.35 kg (5.3%)	75.9 %	25
Grain	Słód karmelowy 30 Viking Malt	0.25 kg (3.8%)	75 %	35
Grain	Carafa Special typ II	0.5 kg (7.6%)	65 %	1150
Grain	BESTMALZ - Best Pilsen	0.5 kg (7.6%)	80.5 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	35 g	60 min	12.8 %
Boil	Simcoe	15 g	20 min	13.1 %
Boil	Centennial	15 g	20 min	9.7 %
Boil	Simcoe	15 g	7 min	13.1 %
Boil	Centennial	15 g	7 min	9.7 %
Boil	Simcoe	20 g	1 min	13.1 %
Boil	Centennial	20 g	1 min	9.7 %

Dry Hop	Amarillo, cascade, citra	60 g	4 day(s)	11 %
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Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	100 ml	po warce 21

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	1 g	Boil	10 min