

Black rye IPA

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **86**
- SRM **8.4**
- Style **Black IPA**

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)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **66 C**, Time **50 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **50 min** at **66C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (44.4%)	85 %	7
Grain	Pilzneński	2 kg (29.6%)	81 %	4
Grain	Żytni	1.3 kg (19.3%)	85 %	8
Adjunct	Weyermann - Carafa II	0.0001 kg	70 %	1100
Grain	Biscuit Malt	0.25 kg (3.7%)	79 %	45
Grain	Karmelowy Jasny 30EBC	0.2 kg (3%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	30 g	60 min	10.5 %
Boil	Cascade	30 g	45 min	6 %
Boil	Simcoe	30 g	30 min	13.2 %
Aroma (end of boil)	Simcoe	30 g	5 min	13.2 %
Aroma (end of boil)	Citra	30 g	5 min	12 %
Dry Hop	Mosaic	30 g	4 day(s)	10 %
Dry Hop	Azacca	30 g	4 day(s)	14 %
Dry Hop	Simcoe	30 g	4 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
1056	Ale	Slant	200 ml	Wyeast