

ciemnosci

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **77**
- SRM **28.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

Steps

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

Mash step by step

- Heat up **9.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (80.6%)	80 %	5
Grain	carafa special 1	0.2 kg (6.5%)	75 %	900
Grain	Płatki owsiane	0.2 kg (6.5%)	85 %	3
Grain	Special B Castle	0.2 kg (6.5%)	70 %	350

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	25 min	13.1 %
Boil	Citra	15 g	0 min	13.1 %
Boil	Cascade	10 g	60 min	9 %
Boil	Cascade	30 g	0 min	9 %
Aroma (end of boil)	Mosaic	15 g	20 min	12.6 %
Aroma (end of boil)	Mosaic	15 g	0 min	12.6 %
Dry Hop	citra	20 g	3 day(s)	13.1 %
Dry Hop	Mosaic	20 g	3 day(s)	12.6 %
Boil	Cascade	10 g	25 min	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

fm 52	Ale	Liquid	30 ml	fermentum mpbile
-------	-----	--------	-------	------------------