

# Black IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **73**
- SRM **37.4**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **18.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **18.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.3 kg (71.7%)	80 %	5
Grain	Pszeniczny	0.3 kg (6.5%)	85 %	4
Grain	Carafa special III	0.3 kg (6.5%)	70 %	1400
Grain	Płatki owsiane	0.25 kg (5.4%)	60 %	3
Grain	Crystal castle malting	0.15 kg (3.3%)	72 %	150
Grain	Pszeniczny Czekoladowy	0.1 kg (2.2%)	73 %	1001
Sugar	cukier	0.2 kg (4.3%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	27 g	60 min	12.9 %
Boil	Simcoe	30 g	15 min	12.9 %
Aroma (end of boil)	Simcoe	43 g	0 min	12.9 %

## Yeasts

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

WLP001 - California Ale Yeast	Ale	Liquid	70 ml	White Labs
-------------------------------	-----	--------	-------	------------

### Extras

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

### Notes

- chlorki: 73ppm, siarczki: 60ppm (1g gips, 6ml chlorek wapnia 33% na 14l)  
Woda kryształ żywiecki

Słody palone na przerwę 72 stopnie.

*Apr 23, 2023, 3:18 PM*