

black ipa

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **59**
- SRM **36.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Golden Promise	3 kg (80%)	81 %	4
Grain	Simpsons - Maris Otter	0.5 kg (13.3%)	81 %	6
Grain	Weyermann - Carapils	0.2 kg (5.3%)	78 %	4
Liquid Extract	ekstrakt słodowy ciemny wes	0.05 kg (1.3%)	90 %	9000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	20 g	30 min	11 %
Boil	Chinook	20 g	30 min	13 %
Whirlpool	Mosaic	50 g	0 min	10 %
Dry Hop	Galaxy	100 g	2 day(s)	13.2 %
Dry Hop	Citra	50 g	2 day(s)	10 %

Yeasts

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

WLP001 - California Ale Yeast	Ale	Liquid	100 ml	White Labs
-------------------------------	-----	--------	--------	------------

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	4 g	Mash	60 min
Fining	whirflock	1 g	Boil	5 min