

# Black Ipa V4

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- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **90**
- SRM **29.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **18.2 liter(s)**

## Steps

- Temp **67 C**, Time **50 min**
- Temp **76 C**, Time **15 min**

## Mash step by step

- Heat up **13.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **15 min** at **76C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3 kg (65.9%)	80 %	8
Grain	Pilzneński	1 kg (22%)	81 %	4
Grain	Carahell	0.1 kg (2.2%)	77 %	26
Grain	Jęczmień palony	0.1 kg (2.2%)	55 %	985
Grain	Carafa II	0.25 kg (5.5%)	70 %	812
Grain	Brown Malt (British Chocolate)	0.1 kg (2.2%)	70 %	128

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	60 min	12.5 %
Boil	Citra	20 g	30 min	12.5 %
Aroma (end of boil)	Simcoe Citra Cascade	30 g	5 min	12.5 %
Whirlpool	Simcoe Citra Cascade	30 g	20 min	12 %
Dry Hop	Simcoe Citra Cascade	30 g	3 day(s)	12 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
S-05	Ale	Dry	7 g	---