

## #17 Black IPA

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **56**
- SRM **32.2**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **23.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **28.7 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.9 liter(s)**
- Total mash volume **30.7 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **71 C**, Time **25 min**
- Temp **79 C**, Time **5 min**

### Mash step by step

- Heat up **23.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **25 min** at **71C**
- Keep mash **5 min** at **79C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.6 kg (67.3%)	81 %	4
Grain	Oats, Flaked	0.74 kg (10.8%)	74 %	2
Grain	Wheat, Flaked	0.5 kg (7.3%)	74 %	4
Grain	Cara-Pils/Dextrine	0.5 kg (7.3%)	72 %	4
Grain	Weyermann - Dehusked Carafa III	0.49 kg (7.2%)	1 %	1400
No mashout				

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	50 g	60 min	10 %
Boil	Simcoe	10 g	10 min	12.6 %
Boil	Mosaic	10 g	10 min	12.8 %
Whirlpool	Galaxy	50 g	1 min	16 %
Whirlpool	Simcoe	50 g	1 min	12.6 %
Whirlpool	Mosaic	60 g	1 min	12.8 %
Dry Hop	Mosaic	60 g	2 day(s)	12.8 %

Dry Hop	Amarillo	50 g	2 day(s)	9.5 %
Dry Hop	Galaxy	50 g	2 day(s)	15 %
Dry Hop	Simcoe	50 g	2 day(s)	13.2 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
WLP090 - San Diego Super Yeast	Ale	Slant	200 ml	White Labs