

## Black IPA 3.0

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **80**
- SRM **25.4**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **13.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **13.9 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **10.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **6.1 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.9 kg (93.5%)	85 %	7
Grain	Weyermann - Carafa III	0.2 kg (6.5%)	70 %	1024

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga	20 g	60 min	9.5 %
Boil	Simcoe	20 g	15 min	12.9 %
Boil	Citra	15 g	15 min	13.1 %
Whirlpool	Simcoe	15 g	0 min	12.9 %
Whirlpool	Galaxy	15 g	0 min	14.2 %
Whirlpool	Citra	15 g	0 min	13.1 %
Dry Hop	Citra	25 g	2 day(s)	13.1 %
Dry Hop	Galaxy	25 g	2 day(s)	14.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - American Ale II	Ale	Liquid	150 ml	Wyeast Labs