

## Black IPA nr. 2

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **58**
- SRM **33.5**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp Pale Ale	5 kg (76.9%)	83 %	6.5
Grain	Weyermann pszeniczny jasny	1 kg (15.4%)	80 %	4
Grain	Weyermann - Carafa III	0.3 kg (4.6%)	70 %	1400
Grain	Weyermann - Chocolate Wheat	0.2 kg (3.1%)	74 %	1100

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	25 g	60 min	8.9 %
Boil	Simcoe	20 g	30 min	14.4 %
Boil	Chinook	20 g	30 min	11.1 %
Boil	Mech irlandzki	5 g	10 min	1 %
Aroma (end of boil)	Simcoe	30 g	0 min	14.4 %
Aroma (end of boil)	Chinook	30 g	0 min	11.1 %
Dry Hop	Simcoe	50 g	2 day(s)	14.4 %
Dry Hop	Chinook	50 g	2 day(s)	11.1 %