

## Black IPA nr 2

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **63**
- SRM **28.1**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **58 C**, Time **10 min**
- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **10 min** at **58C**
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.6 kg (80.7%)	80 %	5
Grain	Strzegom Karmel 600	0.4 kg (7%)	68 %	601
Grain	Strzegom Czekoladowy jasny	0.3 kg (5.3%)	68 %	400
Grain	Carafa II	0.2 kg (3.5%)	70 %	812
Adjunct	Rice Hulls	0.2 kg (3.5%)	1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bravo	20 g	60 min	15.5 %
Boil	Eldorado	20 g	15 min	12.4 %
Whirlpool	Sabro	30 g	30 min	15 %
Dry Hop	Sabro	50 g	3 day(s)	15 %