

## black IPA

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **44**
- SRM **34.7**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **18.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.5 kg (40.3%)	79 %	6
Grain	Strzegom Pilzneński	3 kg (48.4%)	80 %	4
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (4.8%)	73 %	1001
Grain	Carafa II	0.2 kg (3.2%)	1 %	812
Grain	Carafa III	0.2 kg (3.2%)	1 %	1034

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	30 g	30 min	13.2 %
Boil	Simcoe	20 g	5 min	13.2 %
Whirlpool	Simcoe	50 g	5 min	13.2 %
Dry Hop	Simcoe	150 g	3 day(s)	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP 090 costal haze	Ale	Liquid	1000 ml	White Labs