

## 15# Black Ipa

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **69**
- SRM **25.9**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (53.6%)	79 %	6
Grain	Strzegom Monachijski typ II	2 kg (35.7%)	79 %	22
Grain	Słód Caramunich Typ II Weyermann	0.3 kg (5.4%)	73 %	120
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.4%)	68 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	30 g	60 min	13.2 %
Boil	Mosaic	30 g	30 min	10 %
Aroma (end of boil)	Cascade	20 g	1 min	6 %
Dry Hop	Citra	30 g	3 day(s)	12 %
Dry Hop	Cascade PL	15 g	3 day(s)	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis