

# Black IPA

- Gravity **15.9 BLG**
- ABV ---
- IBU **51**
- SRM **39.1**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **42 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **53.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **35.7 liter(s)**
- Total mash volume **47.6 liter(s)**

## Steps

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

## Mash step by step

- Heat up **35.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **29.3 liter(s)** of **76C** water or to achieve **53.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	11 kg (88.7%)	79 %	6
Adjunct	Pszenica niesłodowana	0.5 kg (4%)	75 %	3
Grain	Strzegom pszenica prażona	0.4 kg (3.2%)	70 %	1000
Grain	Strzegom Barwiący	0.3 kg (2.4%)	68 %	1300
Grain	Czekoladowy	0.2 kg (1.6%)	60 %	788

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.7 %
Aroma (end of boil)	Chinook	30 g	10 min	11.2 %
Aroma (end of boil)	Chinook	20 g	5 min	11.2 %
Aroma (end of boil)	Simcoe	20 g	5 min	11.4 %
Aroma (end of boil)	Simcoe	30 g	1 min	11.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis