

# Black IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **77**
- SRM **32.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (68.5%)	80 %	4
Grain	Oats, Flaked	1.2 kg (16.4%)	80 %	2
Grain	Weyermann - Dehusked Carafa II	0.6 kg (8.2%)	30 %	1100
Grain	Pszeniczny	0.5 kg (6.8%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	70 g	60 min	9.1 %
Boil	Sabro	25 g	0 min	15 %
Whirlpool	Sabro	50 g	20 min	15 %
Dry Hop	HBC 472	25 g	3 day(s)	9.5 %
Dry Hop	Idaho Gem	50 g	3 day(s)	13.7 %
Dry Hop	Sabro	50 g	3 day(s)	15 %
Dry Hop	BRU-1	25 g	3 day(s)	15.7 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCl <sub>2</sub>	7 g	Mash	60 min
Water Agent	Lactic Acid	7 g	Mash	60 min
Fining	Whirlfloc-T	2.5 g	Boil	10 min