

# Black IPA

- Gravity **14.5 BLG**
- ABV ---
- IBU **62**
- SRM **40.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **6 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **26.3 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (82%)	81 %	4
Grain	Carafa II	0.5 kg (8.2%)	70 %	1100
Grain	Biscuit Malt	0.25 kg (4.1%)	79 %	45
Sugar	cukier	0.25 kg (4.1%)	--- %	---
Grain	Strzegom Karmel 150	0.1 kg (1.6%)	75 %	180

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	marynka	50 g	60 min	8.8 %
Boil	Cascade	25 g	45 min	6.8 %
Boil	Willamette	25 g	15 min	4.5 %
Aroma (end of boil)	Cascade	25 g	0 min	6 %
Dry Hop	Cascade	50 g	5 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis