

# Black IPA

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **43**
- SRM **21**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **48.3 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

## Steps

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

## Mash step by step

- Heat up **24 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **32.3 liter(s)** of **76C** water or to achieve **48.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (52.6%)	81 %	4
Grain	Viking Pale Ale malt	1.5 kg (15.8%)	80 %	5
Grain	Strzegom Barwiący	0.5 kg (5.3%)	68 %	1300
Grain	Płatki pszeniczne	1 kg (10.5%)	85 %	3
Liquid Extract	WES ekstrakt słodowy jasny	1 kg (10.5%)	80 %	---
Sugar	cukier	0.5 kg (5.3%)	100 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	15 g	10 min	15.5 %
Aroma (end of boil)	Galaxy	30 g	0 min	15 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	35 g	0 min	15.5 %