

# Black IPA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **61**
- SRM **37.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **21.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **26.5 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **21.2 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **21.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski typ I	4.3 kg (81.1%)	80 %	17
Grain	Weyermann - Dehusked Carafa III	0.4 kg (7.5%)	70 %	1500
Dodać na ostatnie 20 min zacierania				
Grain	Płatki owsiane	0.6 kg (11.3%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Idaho 7	12.5 g	20 min	13.2 %
Boil	Idaho 7	37.5 g	10 min	13.2 %
Aroma (end of boil)	Citra	50 g	7 min	12.6 %
Aroma (end of boil)	Idaho 7	25 g	5 min	13.2 %
Dry Hop	Idaho 7	50 g	7 day(s)	13.2 %
Dry Hop	Citra	12.5 g	7 day(s)	12.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Other	łuska ryżowa	10 g	Mash	72 min
pomoc w filtracji				
Other	Witamina C	3 g	Bottling	---