

# Black Ipa

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- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **77**
- SRM **8.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

## Steps

- Temp **66 C**, Time **10 min**
- Temp **70 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **25.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **10 min** at **66C**
- Keep mash **40 min** at **70C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.5 kg (64.7%)	80 %	5
Grain	Pszeniczny	1 kg (11.8%)	85 %	4
Grain	Viking Melanoidynowy	0.5 kg (5.9%)	75 %	60
Grain	Weyermann - Carared	0.5 kg (5.9%)	75 %	45
Grain	Płatki pszeniczne	0.5 kg (5.9%)	60 %	3
Grain	Płatki owsiane	0.5 kg (5.9%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Magnum	35 g	40 min	13.5 %
Aroma (end of boil)	Sabro	35 g	25 min	15 %
Aroma (end of boil)	Nelson Sauvín	25 g	25 min	11 %
Whirlpool	Sabro	70 g	10 min	15 %
Whirlpool	Nelson Sauvín	100 g	10 min	11 %
Dry Hop	Sabro	40 g	7 day(s)	15 %

Dry Hop	Nelson Sauvín	50 g	7 day(s)	11 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Us 05	Ale	Slant	200 ml	Moje