

# Czarny On

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **44**
- SRM **36**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **22.2 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **16.6 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **23.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (36%)	80 %	5
Grain	Pszeniczny	1 kg (18%)	85 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (9%)	79 %	16
Grain	Płatki owsiane	0.4 kg (7.2%)	85 %	3
Grain	Carafa III	0.2 kg (3.6%)	70 %	1034
Grain	Strzegom Czekoladowy 1200	0.25 kg (4.5%)	68 %	1202
Grain	Czekoladowy	0.2 kg (3.6%)	60 %	788
Grain	Pilzneński	1 kg (18%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Whirlpool	Amarillo	80 g	10 min	9.5 %
Aroma (end of boil)	Amarillo	10 g	5 min	9.5 %
Boil	Amarillo	10 g	60 min	9.5 %
Aroma (end of boil)	Mosaic	20 g	10 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	200 ml	FM

## Extras

Type	Name	Amount	Use for	Time
Spice	skórka słodkiej pomarańczy	10 g	Boil	10 min