

# Czarny QŃ

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **62**
- SRM **4.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **72 C**, Time **60 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Strzegom Pilzneński	1.5 kg (21.4%)	80 %	4
Grain	Pszeniczny	0.5 kg (7.1%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	5 g	60 min	12.9 %
Boil	Simcoe	5 g	60 min	12.9 %
Boil	Equinox	5 g	60 min	13.1 %
Boil	Simcoe	15 g	20 min	12.9 %
Boil	Equinox	15 g	20 min	13.1 %
Boil	Citra	15 g	20 min	12.9 %
Boil	Simcoe	10 g	10 min	12.9 %
Boil	Citra	10 g	10 min	12.9 %
Boil	Equinox	10 g	10 min	13.1 %
Boil	Simcoe	15 g	1 min	13.2 %
Boil	Citra	15 g	1 min	12.9 %
Boil	Equinox	15 g	1 min	13.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis
Brettanomyces Bruxellensis TYB207 THE YEAST BAY	Ale	Liquid	35 ml	White Labs

### Notes

- Bretty dodane po skończonej fermentacji sacharomyces. Zrobiony starter litrowy na 5 dni przed zadaniem.  
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