

# Czarne sabro sh

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **90**
- SRM **33.9**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

## Steps

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

## Mash step by step

- Heat up **22.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.8 kg (64.9%)	80 %	5
Grain	Płatki owsiane	0.4 kg (5.4%)	60 %	3
Grain	Płatki pszeniczne	0.4 kg (5.4%)	60 %	3
Grain	Strzegom Monachijski typ I	0.5 kg (6.8%)	79 %	16
Grain	Strzegom Wiedeński	0.5 kg (6.8%)	79 %	10
Grain	Weyermann - Dehusked Carafa III	0.1 kg (1.4%)	70 %	1300
Grain	Viking Barwiący	0.3 kg (4.1%)	65 %	1400
Grain	Jęczmień palony	0.2 kg (2.7%)	55 %	985
Grain	Castlemalting - Cara Clair	0.1 kg (1.4%)	78 %	4
Grain	Biscuit Malt	0.1 kg (1.4%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sabro	30 g	30 min	14 %
Boil	Sabro	30 g	20 min	14 %
Boil	Sabro	30 g	15 min	14 %

Boil	Sabro	30 g	10 min	14 %
Boil	Sabro	30 g	5 min	14 %
Boil	Sabro	70 g	1 min	14 %
Whirlpool	Sabro	80 g	0 min	14 %
15 minut w 80 st C				
Dry Hop	Sabro	100 g	3 day(s)	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	200 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Epsom	2.5 g	Mash	---
Water Agent	Kwas mlekowy	10 g	Mash	---

## Notes

- Brzeczka nastawna 16.2 blg  
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