

# Bezglutenowe ciemne 20l nowa receptura

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **31**
- SRM ---
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **45 C**, Time **20 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **18.7 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **72C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód gryczany	4 kg (74.9%)	48 %	---
Grain	Grys kukurydziany	0.67 kg (12.5%)	80 %	---
Grain	Proso	0.67 kg (12.5%)	51 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	3.33 g	60 min	13.3 %
Boil	Simcoe	3.33 g	45 min	13.3 %
Boil	Simcoe	6.67 g	30 min	13.3 %
Boil	Simcoe	13.33 g	15 min	13.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.47 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Spice	Pędy sosny	13.33 g	Mash	30 min
Spice	Pędy sosny	13.33 g	Boil	5 min

Spice	Pędy sosny	33.33 g	Secondary	4 day(s)
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