

# Gryczane

- Gravity **10 BLG**
- ABV **4 %**
- IBU **24**
- SRM **17**
- Style **Spice, Herb, or Vegetable Beer**

## 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 **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **45 C**, Time **30 min**
- Temp **68 C**, Time **120 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **30 min** at **45C**
- Keep mash **120 min** at **68C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	kasza grycznaa prażona	2.1 kg (46.7%)	80 %	100
Grain	Viking Pilsner malt	2 kg (44.4%)	82 %	4
Grain	Biscuit Malt	0.2 kg (4.4%)	79 %	45
Grain	Strzegom Karmel 300	0.2 kg (4.4%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - London ESB Ale	Ale	Liquid	100 ml	Wyeast Labs

## Notes

- Zacieranie - przerwa beta-ferulikowa / białkowa 30 min w 45C  
Potem powolne podgrzewanie do 68C (podgrzewanie + zacieranie razem 120 min)  
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