

## Mała Czarna #3 - Irish Stout - Browar na Wyżynie

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **29**
- SRM **36.7**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **6 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **25.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Viking Malt	1.5 kg (31.9%)	80 %	6
Grain	golden ale Viking Malt	1 kg (21.3%)	80 %	11
Grain	piłzniejszy Viking Malt	0.7 kg (14.9%)	81 %	4
Grain	czekoladowy jasny Viking Malt	0.5 kg (10.6%)	68 %	400
Grain	pszenica prażona Viking Malt	0.25 kg (5.3%)	1 %	1100
Grain	czekoladowy ciemny Viking Malt	0.25 kg (5.3%)	1 %	900
Grain	płatki jęczmienne błyskawiczne	0.5 kg (10.6%)	70 %	1

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga (PL) - granulata	18 g	100 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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US-05	Ale	Dry	11 g	---
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### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	2 g	Boil	15 min
Water Agent	kreda	5 g	Mash	70 min

### Notes

- metryczka VIII Warszawski  
*Feb 12, 2020, 12:43 PM*