

## Mała czarna

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **34**
- SRM **26.6**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **6.4 liter(s)**
- Total mash volume **8.9 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**

### Mash step by step

- Heat up **6.4 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (78.4%)	80 %	5
Grain	Jęczmień palony	0.25 kg (9.8%)	55 %	1100
Grain	Strzegom Monachijski typ I	0.3 kg (11.8%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	22 g	60 min	8.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	100 ml	Fermentum Mobile