

## Czarny rozpięd

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **70**
- SRM **48.7**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **1 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **1 min** at **72C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Thomas Fawcett Halcyon	4 kg (72.7%)	80.5 %	5
Grain	Briess - Roasted Barley	0.5 kg (9.1%)	55 %	591
Grain	Briess - Chocolate Malt	0.5 kg (9.1%)	60 %	690
Grain	Carafa III	0.5 kg (9.1%)	70 %	1034

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	50 g	60 min	10 %
Boil	Motueka	40 g	15 min	7 %
Aroma (end of boil)	Motueka	20 g	1 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

### Extras

Type	Name	Amount	Use for	Time
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Fining	moss	2 g	Boil	15 min
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