

## Stout z dodatkami

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **18**
- SRM **57**
- Style **Dry 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 **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **48 C**, Time **15 min**
- Temp **62 C**, Time **60 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **52.7C**
- Add grains
- Keep mash **15 min** at **48C**
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (50%)	80 %	5
Grain	Słód owsiany	0.5 kg (7.1%)	61 %	5
Grain	Fawcett - Brown	0.5 kg (7.1%)	72 %	180
Grain	Castle Cafe	0.5 kg (7.1%)	75.5 %	250
Grain	Carafa II	0.5 kg (7.1%)	70 %	1100
Grain	Fawcett - Chocolate	0.5 kg (7.1%)	71 %	1100
Grain	Special B Malt	0.5 kg (7.1%)	65.2 %	260
Grain	Carahell	0.5 kg (7.1%)	77 %	26

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amora Preta	10 g	50 min	11.2 %
Boil	Amora Preta	10 g	30 min	11.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safbrew S-33	Ale	Dry	11.5 g	Fermentis
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## Notes

- Różne dodatki najpewniej już do butelek dodam.  
*Mar 2, 2023, 10:27 PM*