

Challenge accepted

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **23.2**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **22.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **16.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (57.9%)	80 %	5
Grain	Monachijski typ II 20-25 EBC Weyermann	1 kg (16.6%)	80 %	20
Grain	Weyermann - Smoked Malt	0.54 kg (8.9%)	81 %	6
Adjunct	Briess - Barley Flakes	0.5 kg (8.3%)	70 %	3
Grain	Weyermann - Chocolate Wheat	0.2 kg (3.3%)	74 %	788
Grain	Jęczmień palony	0.3 kg (5%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	25 g	60 min	7 %
Boil	Challenger	25 g	10 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Wyeast - London Ale III	Ale	Liquid	200 ml	Wyeast Labs
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