

Stout

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **50**
- SRM **23.7**
- 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 **60 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **22.4 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.5 kg (80.4%)	82 %	4
Grain	Caraaroma	0.3 kg (5.4%)	78 %	400
Grain	Carafa	0.4 kg (7.1%)	70 %	664
Grain	Płatki owsiane	0.4 kg (7.1%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	50 min	10 %
Boil	Lublin (Lubelski)	40 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	21 g	Safale