stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **37**
- SRM **29.2**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **20.9 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **75 C**, Time **1 min**

Mash step by step

- Heat up **16.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **1 min** at **75C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4 kg *(86%)*	81 %	6
Grain	Weyermann - Chocolate Rye	0.1 kg *(2.2%)*	20 %	493
Grain	Palony jęczmień Weyermann	0.43 kg *(9.2%)*	55 %	1000
Grain	Carafa II	0.12 kg *(2.6%)*	70 %	812

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Chinook PL	30 g	60 min	8.5 %
Boil	Hallertau Tradition	40 g	10 min	4.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc t	0.5 g	Boil	10 min

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.