

sef 2.0

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **48**
- SRM **41.2**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Fawcett- Maris Otter	2.5 kg (64.1%)	80 %	6
Grain	Fawcett - Chocolate Malt	0.25 kg (6.4%)	70 %	1100
Grain	Fawcett-cara malt	0.25 kg (6.4%)	70 %	30
Grain	Fawcett-roasted barley	0.25 kg (6.4%)	70 %	600
Grain	Fawcett - Pale Chocolate	0.25 kg (6.4%)	71 %	600
Grain	Płatki gryczane	0.4 kg (10.3%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	25 g	60 min	5 %
Boil	East Kent Goldings	25 g	30 min	4.8 %
Boil	Aurora	25 g	10 min	4.8 %
Boil	East Kent Goldings	20 g	10 min	5.1 %
Boil	Fuggles	20 g	5 min	5 %

Yeasts

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

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	2 g	Mash	10 min