Dry Stout 12 blg ctz/oktawia

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **28.3**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **31.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21.9 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.2 kg *(39.3%)*	82 %	4
Grain	Viking Pale Ale malt	2.2 kg *(39.3%)*	80 %	5
Grain	Special B Castle	0.3 kg *(5.4%)*	70 %	350
Grain	Simpsons - Roasted Barley	0.2 kg *(3.6%)*	70 %	1600
Adjunct	Płatki owsiane	0.5 kg *(8.9%)*	85 %	3
Grain	Simpsons - Chocolate Malt	0.2 kg *(3.6%)*	73 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus US	15 g	60 min	15.5 %
Aroma (end of boil)	Oktawia	15 g	10 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Liquid	200 ml	FERMENTIS

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