tropical stout

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **38**
- SRM **42.6**
- Style **Foreign Extra 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **30.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **23.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg *(74%)*	80 %	7
Grain	Płatki owsiane	0.5 kg *(7.4%)*	85 %	3
Grain	Jęczmień palony	0.5 kg *(7.4%)*	55 %	985
Grain	Chocolate Malt (UK)	0.38 kg *(5.6%)*	73 %	1100
Grain	Abbey Castle	0.38 kg *(5.6%)*	80 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	30 g	60 min	13.3 %
Dry Hop	relax	30 g	14 day(s)	1 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-04	Ale	Dry	22 g	safale

Extras

Type	Name	Amount	Use for	Time

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

Spice	skórka słodkiej pomarańczy	25 g	Boil	15 min
Fining	mech irlandzki	10 g	Boil	15 min
Spice	Cayenne Pepper	5 g	Boil	15 min