

Siekiera 2.0

- Gravity **15.6 BLG**
- ABV ---
- IBU **77**
- SRM **40**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **74 C**, Time **15 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **74C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4.5 kg (66.2%)	81 %	6
Grain	Caraaroma	0.25 kg (3.7%)	78 %	400
Grain	Briess - Chocolate Malt	0.5 kg (7.4%)	60 %	690
Grain	Briess - Midnight Wheat Malt	0.5 kg (7.4%)	55 %	1084
Grain	Jęczmień palony	0.3 kg (4.4%)	55 %	985
Grain	Cara Blonde - Castle Malting	0.25 kg (3.7%)	75 %	250
Grain	Oats, Flaked	0.5 kg (7.4%)	80 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	11 %
Boil	Citra	15 g	50 min	13 %
Boil	Chinook	35 g	15 min	11 %
Boil	Citra	35 g	10 min	13 %
Boil	Amarillo	25 g	5 min	9 %
Aroma (end of boil)	Simcoe	25 g	0 min	11 %

Dry Hop	Simcoe	25 g	4 day(s)	13 %
Dry Hop	Amarillo	25 g	4 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	12 g	Fermentis