

Kiedys to było

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **64**
- SRM **21.7**
- Style **American Brown Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **31.6 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **32.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **23 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8.5 kg (92.4%)	80 %	5
Grain	Caraaroma	0.5 kg (5.4%)	78 %	400
Grain	Jęczmień palony	0.2 kg (2.2%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	25 g	90 min	15 %
Boil	Galaxy	20 g	90 min	15 %
Boil	Simcoe	10 g	10 min	13.2 %
Whirlpool	Simcoe	10 g	30 min	13.2 %
Dry Hop	Simcoe	30 g	2 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	20 g	Fermentis