single hop cascade 32

- Gravity **13.6 BLG**
- ABV **---**
- IBU **31**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **65 C**, Time **70 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **21.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **5 min** at **76C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(80.6%)*	80 %	5
Grain	Pszeniczny	0.5 kg *(8.1%)*	85 %	4
Grain	caramunich	0.3 kg *(4.8%)*	--- %	---
Grain	Płatki owsiane	0.4 kg *(6.5%)*	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	60 min	7.7 %
Boil	Cascade	15 g	30 min	7.7 %
Boil	Cascade	30 g	15 min	7.7 %
Boil	Cascade	45 g	1 min	7.7 %
Dry Hop	Cascade	90 g	6 day(s)	7.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	200 ml	Fermentum Mobile

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