apa owsiana

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **41**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg *(83.3%)*	80 %	4
Grain	Słód Honig Viking	0.5 kg *(8.3%)*	80 %	12
Grain	Żytni	0.5 kg *(8.3%)*	85 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	50 min	13 %
Aroma (end of boil)	Cascade PL	50 g	5 min	5.2 %
Dry Hop	Galena	20 g	4 day(s)	12 %
Dry Hop	Cascade PL	10 g	4 day(s)	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	0.5 g	Fermentis

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.

Water Agent	płatki owsiane	300 g	Mash	70 min