#52 American Pale Lager

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **31**
- SRM **4.3**
- Style **Classic American Pilsner**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **64 C**, Time **55 min**
- Temp **79 C**, Time **5 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **55 min** at **64C**
- Keep mash **5 min** at **79C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(96.2%)*	80 %	5
Grain	Strzegom Monachijski typ II	0.2 kg *(3.8%)*	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	25 g	30 min	9 %
Boil	Oktawia	25 g	15 min	9 %
Boil	Oktawia	50 g	1 min	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	300 ml	Fermentis