APA czyszczenie magazynu

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **42**
- SRM **4.9**
- 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 **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **26.4 liter(s)**
- Total mash volume **34.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **26.4 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **1 min** at **78C**
- Sparge using **13.3 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	8 kg *(100%)*	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Eureka	21 g	60 min	13 %
Boil	Magnum	10 g	60 min	12 %
Boil	Oktawia	20 g	20 min	9 %
Boil	Oktawia	20 g	10 min	9 %
Aroma (end of boil)	Oktawia	15 g	0 min	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	300 ml	Fermentum Mobile