

APA

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **15**
- SRM **7.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **15 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.5 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **13.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	1 kg (22.5%)	85 %	4
Grain	Viking Pale Ale malt	3 kg (67.4%)	80 %	5
Grain	Płatki owsiane	0.2 kg (4.5%)	85 %	3
Grain	Cara Gold	0.25 kg (5.6%)	75 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	30 min	13 %
Aroma (end of boil)	Chinook	40 g	0 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	150 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	10 min