

APA

- Gravity **12.9 BLG**
- ABV ---
- IBU **46**
- SRM **10.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **30.7 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **30.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (72.7%)	85 %	7
Grain	Weyermann pszeniczny jasny	1 kg (18.2%)	80 %	6
Grain	Caramunich Malt	0.5 kg (9.1%)	71.7 %	100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	26 g	60 min	13.2 %
Aroma (end of boil)	Cascade	25 g	20 min	9.7 %
Aroma (end of boil)	Cascade	25 g	0 min	9.7 %
Dry Hop	Cascade	20 g	4 day(s)	6 %
Dry Hop	Cascade	15 g	2 day(s)	6 %
Dry Hop	Centennial	15 g	2 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	40 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Other	liście limonki	10 g	Boil	10 min