

APA

- Gravity **13.2 BLG**
- ABV ---
- IBU **29**
- SRM **9.9**
- 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 **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **50 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg (87.7%)	80 %	7
Grain	Weyermann pszeniczny jasny	0.4 kg (7%)	80 %	6
Grain	Strzegom Karmel 150	0.3 kg (5.3%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	20 g	60 min	10 %
Boil	Centennial	20 g	20 min	9.4 %
Whirlpool	Centennial	20 g	0 min	9.4 %
Dry Hop	Mosaic	10 g	7 day(s)	10 %
Dry Hop	Citra	30 g	5 day(s)	12 %
Dry Hop	Centennial	20 g	3 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Liquid	250 ml	Safale

Extras

Type	Name	Amount	Use for	Time
Fining	irish moss	5 g	Boil	15 min