

APA 1

- Gravity **14.3 BLG**
- ABV ---
- IBU **49**
- SRM **7.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	0.5 kg (8.8%)	85 %	3
Grain	Pale Ale	5 kg (88.5%)	80 %	5.5
Grain	Strzegom Karmel 150	0.15 kg (2.7%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus	20 g	45 min	15 %
Boil	Columbus	10 g	20 min	15 %
Boil	Citra	15 g	10 min	12.4 %
Boil	Equinox	15 g	10 min	13.4 %
Boil	Citra	15 g	0 min	12.4 %
Dry Hop	Equinox	60 g	6 day(s)	13.4 %
Boil	Equinox	15 g	0 min	13.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis