

#18 APA

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **27.9 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.267 kg (65.8%)	80 %	4
Grain	Strzegom Pale Ale	0.65 kg (13.1%)	79 %	6
Grain	Strzegom Karmel 30	0.1 kg (2%)	75 %	30
Grain	Weyermann - Acidulated Malt	0.15 kg (3%)	80 %	6
Grain	Płatki owsiane	0.4 kg (8.1%)	85 %	3
Grain	Barley, Flaked	0.4 kg (8.1%)	70 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	12.6 %
Whirlpool	Simcoe	70 g	8 min	12.9 %
Whirlpool	Citra	30 g	8 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	300 ml	Safale