

## APA 1

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **64**
- SRM **8.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **0 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (50%)	79 %	6
Grain	Strzegom Monachijski typ I	1.5 kg (25%)	79 %	16
Grain	Biscuit Malt	0.5 kg (8.3%)	79 %	45
Grain	Strzegom Karmel 30	0.5 kg (8.3%)	75 %	30
Grain	Płatki pszeniczne	0.5 kg (8.3%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	60 min	16 %
Boil	Centennial	10 g	20 min	9.7 %
Boil	Centennial	10 g	7 min	9.7 %
Dry Hop	Cascade	25 g	3 day(s)	6 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Flavor	curacao	15 g	Boil	15 min
Water Agent	gips	5 g	Mash	---