

APA

- Gravity **11.9 BLG**
- ABV ---
- IBU **34**
- SRM **6.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

Steps

- Temp **65.5 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **13.2 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **60 min** at **65.5C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (68.2%)	79 %	6
Grain	Strzegom Pilzneński	1.2 kg (27.3%)	80 %	4
Grain	Strzegom Karmel 30	0.1 kg (2.3%)	75 %	30
Grain	Strzegom Karmel 150	0.1 kg (2.3%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	22 g	60 min	10.6 %
Boil	Amarillo	15 g	15 min	8.8 %
Whirlpool	Amarillo	10 g	0 min	8.8 %
Whirlpool	Citra	15 g	0 min	13.5 %
Whirlpool	Mosaic	15 g	0 min	11.7 %
Dry Hop	Citra	25 g	4 day(s)	13.5 %
Dry Hop	Mosaic	25 g	4 day(s)	11.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11 g	Fermentis
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