

APA

- Gravity **10 BLG**
- ABV **4 %**
- IBU **28**
- SRM **6.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **74 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **74C**
- Keep mash **0 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3 kg (69.4%)	80 %	7
Grain	Monachijski	1 kg (23.1%)	80 %	16
Grain	Caramunich® typ I	0.325 kg (7.5%)	73 %	80

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	50 min	12 %
Boil	Citra	10 g	15 min	12 %
Boil	Citra	10 g	5 min	12 %
Aroma (end of boil)	Citra	15 g	0 min	12 %
Aroma (end of boil)	Cascade	15 g	0 min	6 %
Dry Hop	Cascade	35 g	5 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	9 g	Fermentis