

APA

- Gravity **12.2 BLG**
- ABV ---
- IBU **35**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss --- %
- Size with trub loss --- **liter(s)**
- Boil time **60 min**
- Evaporation rate --- %/h
- Boil size --- **liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio --- **liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **50 C**, Time **5 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **45 min** at **66C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **-8 liter(s)** of **76C** water

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) US	3.5 kg	79 %	4
Grain	Munich Malt	0.5 kg	80 %	23

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	30 g	60 min	10 %
Dry Hop	Mosaic	20 g	7 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale