

APA

- Gravity **13.3 BLG**
- ABV ---
- IBU **95**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **40 min** at **72C**
- Sparge using **9.1 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3 kg (60%)	80 %	7
Grain	Briess - Pilsen Malt	1 kg (20%)	80.5 %	2
Grain	Chit Malt	0.5 kg (10%)	50 %	2
Grain	Briess - Victory Malt	0.5 kg (10%)	75 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	new port	20 g	60 min	10.7 %
Boil	Cascade	20 g	60 min	6 %
Boil	new port	30 g	30 min	10.7 %
Aroma (end of boil)	Zythos	50 g	5 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11 g	Mangrove Jack's