

APA

- Gravity **11.7 BLG**
- ABV ---
- IBU **40**
- SRM **6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (60%)	80 %	6
Grain	Maris Otter Crisp	0.5 kg (10%)	83 %	6
Grain	Strzegom Wiedeński	1 kg (20%)	79 %	10
Grain	Strzegom Pszeniczny	0.3 kg (6%)	81 %	6
Grain	Cara Gold Castlemalting	0.2 kg (4%)	78 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	30 min	15.5 %
Boil	Mosaic	25 g	5 min	10 %
Boil	Centennial	25 g	5 min	10.5 %
Boil	Simcoe	25 g	0 min	13.2 %
Dry Hop	Mosaic	25 g	5 day(s)	10 %
Dry Hop	Simcoe	25 g	5 day(s)	13.2 %
Dry Hop	Centennial	25 g	5 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's