

Apka

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **54**
- SRM **7.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (83.3%)	82 %	4
Grain	Karmelowy Pszeniczny Strzegom	0.5 kg (8.3%)	79 %	130
Grain	Płatki owsiane	0.5 kg (8.3%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	19 g	60 min	10.4 %
Boil	Amarillo	17 g	60 min	7.1 %
Aroma (end of boil)	Amarillo	10 g	15 min	7.1 %
Aroma (end of boil)	Mosaic	50 g	15 min	10 %
Dry Hop	Amarillo	40 g	4 day(s)	9.5 %
Dry Hop	Mosaic	40 g	4 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	8 g	Mangrove Jack's