

AMERICAN PALE ALE

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **46**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale	2.5 kg (78.1%)	80 %	6
Grain	Viking Monachijski Ciemny	0.2 kg (6.3%)	80 %	22
Grain	Płatki owsiane	0.5 kg (15.6%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	10 g	60 min	10 %
Aroma (end of boil)	Cascade	20 g	10 min	6 %
Aroma (end of boil)	Citra	20 g	10 min	12 %
Dry Hop	Cascade	20 g	5 day(s)	6 %
Dry Hop	Citra	20 g	5 day(s)	12 %

Yeasts

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