

# hej apa

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **36**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **67 C**, Time **50 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (85.1%)	80 %	5
Grain	Monachijski	0.5 kg (10.6%)	80 %	16
Grain	Karmelowy Jasny 30EBC	0.2 kg (4.3%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Boil	Centennial	15 g	15 min	8.3 %
Boil	Centennial	15 g	10 min	8.3 %
Boil	Centennial	15 g	5 min	8.3 %
Whirlpool	Centennial	20 g	10 min	8.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis