

# apa ff

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **3.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.3 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **77C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **30.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (90%)	80 %	5
Grain	Pszeniczny	0.5 kg (10%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	falconers flight	20 g	30 min	11.3 %
Aroma (end of boil)	falconers flight	20 g	10 min	11.3 %
Whirlpool	falconers flight	20 g	0 min	11.3 %
Dry Hop	falconers flight	40 g	2 day(s)	11.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Slant	200 ml	FM