

# American Pale Ale

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **36**
- SRM **3.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **14.6 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.7 liter(s)**
- Total mash volume **9.9 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **7.7 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9.1 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.2 kg (100%)	90 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	17 g	60 min	9.5 %
Aroma (end of boil)	Cascade	16 g	5 min	5.8 %
Whirlpool	Amarillo	15 g	0 min	9.5 %
Whirlpool	Cascade	18 g	0 min	5.8 %
Dry Hop	Amarillo	20 g	2 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	15 ml	Fermentum Mobile