

# Pale Ale

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **32**
- SRM **3.5**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **16.6 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **12.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.15 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	12 %
Aroma (end of boil)	Lubelski	15 g	10 min	3.8 %
Aroma (end of boil)	Premiant	15 g	10 min	8.2 %
Aroma (end of boil)	Sladek	15 g	10 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	Fermentis