

# Pale Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **44**
- SRM **7.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **52 C**, Time **30 min**
- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **30 min** at **52C**
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (80%)	80 %	5
Grain	Abbey Malt Weyermann	1 kg (20%)	75 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	16.3 g	60 min	6.8 %
Boil	Oktawia	14 g	60 min	8.7 %
Boil	Cascade	20 g	60 min	5.8 %
Aroma (end of boil)	Cascade	40 g	5 min	5.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
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Other	Witamina C	4 g	Primary	14 day(s)
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