

# Pale Ale

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **56**
- SRM **4.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **52.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.2 liter(s)**
- Total mash volume **41.6 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **31.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **32 liter(s)** of **76C** water or to achieve **52.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) US	8.8 kg (84.6%)	79 %	4
Grain	Karmelowy Jasny 30EBC	0.3 kg (2.9%)	75 %	30
Grain	Monachijski	0.5 kg (4.8%)	80 %	16
Grain	Płatki owsiane	0.8 kg (7.7%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	13 %
Whirlpool	Mosaic	75 g	30 min	10 %
Whirlpool	Simcoe	75 g	30 min	13.2 %
Dry Hop	Simcoe	125 g	1 day(s)	13.2 %
Dry Hop	Mosaic	125 g	1 day(s)	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	33 g	Fermentis