

# Pale Ale

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **25**
- SRM **3.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3 kg (85.7%)	80.3 %	5.3
Grain	Strzegom Pilzneński	0.5 kg (14.3%)	80 %	4.5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	15 g	60 min	4.5 %
Boil	Target	15 g	60 min	9 %
Aroma (end of boil)	Citra	25 g	0 min	12 %
Aroma (end of boil)	Galaxy	25 g	0 min	15 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Flavor	mango	1 g	Secondary	7 day(s)