

# Pale Ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **62**
- SRM **10.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **8 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.6 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **23.5 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **19.9 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **1.3 liter(s)** of **76C** water or to achieve **17.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.3 kg (58.2%)	80 %	5
Grain	Caraamber	0.35 kg (8.9%)	75 %	80
Grain	Barley, Flaked	0.25 kg (6.3%)	70 %	4
Grain	Oats, Flaked	0.4 kg (10.1%)	80 %	2
Grain	Thomas Fawcett Pale Cara	0.32 kg (8.1%)	80.5 %	15
Sugar	Cukier kokosowy	0.33 kg (8.4%)	89 %	99

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Izabella	25 g	60 min	5.1 %
Whirlpool	Citra	50 g	20 min	12 %
Boil	Fuggles	20 g	10 min	4.5 %
Boil	izabella	25 g	10 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Slant	200 ml	---