

# Pale Ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **44**
- SRM **8.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (54.7%)	80 %	5
Grain	Viking Pilsner malt	1.2 kg (18.7%)	82 %	4
Grain	Strzegom Monachijski typ I	1 kg (15.6%)	79 %	16
Grain	Viking Wheat Malt	0.5 kg (7.8%)	83 %	5
Grain	Strzegom Karmel 300	0.2 kg (3.1%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	60 min	12.8 %
Boil	Ariana	30 g	15 min	12.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	100 ml	---