

# Pale Ale

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **22**
- SRM **3.4**
- Style **Specialty Beer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **6 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **31.4 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 **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **31.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński Viking Malt	4 kg (80%)	81 %	4
Grain	pszeniczny Viking Malt	1 kg (20%)	84 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka (PL) - granulát	20 g	60 min	5.5 %
Boil	Chinook	10 g	25 min	13 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	10 min	4 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	1 g	Boil	15 min