

# Pale Ale

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **39**
- SRM **5.4**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **17 liter(s)**

## Steps

- Temp **63 C**, Time **5 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **12.8 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **5 min** at **63C**
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (82.4%)	80 %	5
Grain	Carahell	0.5 kg (11.8%)	77 %	26
Grain	Płatki owsiane	0.25 kg (5.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Whirlpool	Styrian Golding	30 g	0 min	3.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Herb	Mięta	30 g	Boil	5 min
Herb	Mięta	20 g	Primary	7 day(s)