

# Pale Ale

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **18**
- SRM **4**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21.9 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.8 liter(s)** of strike water to **75.3C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (58.8%)	80 %	5
Grain	Pilznieński	1.6 kg (31.4%)	81 %	4
Grain	Strzegom Pszeniczny	0.3 kg (5.9%)	81 %	6
Grain	Płatki owsiane	0.2 kg (3.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	12 g	60 min	13.2 %
Whirlpool	Cascade	15 g	0 min	6 %
Whirlpool	Amarillo	7.5 g	0 min	9.5 %
Dry Hop	Lublin (Lubelski)	30 g	0 day(s)	4 %
Dry Hop	Amarillo	7.5 g	0 day(s)	9.5 %
Dry Hop	Cascade	7.5 g	0 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis