

# pale ale

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **2**
- SRM **3.4**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **40 min**
- Evaporation rate **15 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **60 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (51.7%)	80 %	4
Grain	Pszeniczny	2 kg (34.5%)	85 %	4
Grain	Płatki owsiane	0.8 kg (13.8%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Citra	100 g	1 min	12 %