

# Pale Ale

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **3.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **26.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **26.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Soufflet Pilznieński	4 kg (70.2%)	80 %	4
Grain	Weyermann - Spelt Malt	0.7 kg (12.3%)	81 %	6
Grain	Płatki pszeniczne	0.5 kg (8.8%)	85 %	3
Grain	Rye, Flaked	0.5 kg (8.8%)	78.3 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum PL	20 g	60 min	12.9 %
Aroma (end of boil)	Galaxy	15 g	5 min	15.5 %
Whirlpool	Galaxy	60 g	0 min	15.5 %
Dry Hop	Galaxy	90 g	5 day(s)	15.5 %

## Yeasts

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