

# Pale Ale

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- Gravity **11.9 BLG**
- ABV ---
- IBU **56**
- SRM **5.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **75.6 C**, Time **10 min**

## Mash step by step

- Heat up **12.9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **75.6C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.55 kg (59.3%)	81 %	4
Grain	Monachijski	1.4 kg (32.6%)	80 %	16
Grain	Karmelowy Jasny 30EBC	0.35 kg (8.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	60 min	10 %
Boil	Lublin (Lubelski)	40 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar