

## #5 Pale Ale - próba browar

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **4.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **0 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **25.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **68 C**, Time **25 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **25 min** at **62C**
- Keep mash **25 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4 kg (83.3%)	81.1 %	6.2
Grain	Wheat	0.7 kg (14.6%)	84.6 %	4.4
Grain	Carahell	0.1 kg (2.1%)	77.9 %	29

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	22 g	60 min	11.6 %
Boil	Marynka	15 g	30 min	8.2 %
Whirlpool	Nektar	7 g	5 min	5 %
Whirlpool	Książęcy	7 g	5 min	5 %
Dry Hop	Nektar	40 g	5 day(s)	5 %
Dry Hop	Książęcy	40 g	5 day(s)	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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US-05	Ale	Slant	50 ml	---
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