

Pale Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **24**
- SRM **6.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	5 kg (76.9%)	75 %	5
Grain	pszeniczny	0.5 kg (7.7%)	75 %	5
Grain	pale ale red	1 kg (15.4%)	75 %	40

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	chinock	35 g	35 min	8.5 %
Aroma (end of boil)	chinock	30 g	0 min	8.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time
Other	platki owsa	400 g	Mash	60 min