

## Polish ALE

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- Gravity **13.1 BLG**
- ABV ---
- IBU **37**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **23.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **76C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (100%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	25 g	60 min	8.9 %
Aroma (end of boil)	Puławski	25 g	15 min	8.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale