

# Polish Ale

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **32**
- SRM **4.5**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.4 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	4 kg (76.9%)	80.5 %	2
Grain	Munich Malt	1 kg (19.2%)	80 %	18
Grain	Cara 30	0.2 kg (3.8%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	50 min	13 %
Boil	Lublin (Lubelski)	30 g	10 min	4 %
Boil	Sybilla	20 g	5 min	3.5 %

## Yeasts

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