

# Polskie Ale

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- Gravity **11.9 BLG**
- ABV ---
- IBU **43**
- SRM **4.5**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 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 **62 C**, Time **15 min**
- Temp **66 C**, Time **25 min**
- Temp **70 C**, Time **20 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **25 min** at **66C**
- Keep mash **20 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.6 kg (95.8%)	80 %	4
Grain	Karmelowy Czerwony	0.2 kg (4.2%)	75 %	59

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Lublin (Lubelski)	20 g	30 min	4 %
Boil	Sybilla	20 g	10 min	3.5 %

## Yeasts

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