

# ale polskie

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **15**
- SRM **5.9**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (66.7%)	80 %	4
Grain	colorado hoing	0.5 kg (16.7%)	80 %	10
Grain	Strzegom Karmel 30	0.5 kg (16.7%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	15 min	8.8 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	0 min	4 %
Boil	Oktawia	15 g	3 min	7.8 %

## Yeasts

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