

# Grabowski Ale

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **33**
- SRM **3.7**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **45 C**, Time **15 min**
- Temp **55 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **40 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **48.1C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **15 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **73C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6 kg (100%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	9 %
Boil	Lublin (Lubelski)	30 g	30 min	3 %
Whirlpool	Lublin (Lubelski)	30 g	30 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
safale wb-06	Wheat	Dry	11.5 g	---