

# polskie ale w

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **4**

## Batch size

- Expected quantity of finished beer **33.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **35.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **42.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.8 liter(s)**
- Total mash volume **31.9 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **24.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **24.7 liter(s)** of **76C** water or to achieve **42.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6.6 kg (93%)	81 %	4
Grain	Karmelowy Jasny 30EBC	0.5 kg (7%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.1 %
Boil	Lublin (Lubelski)	50 g	20 min	2.8 %
Boil	Lublin (Lubelski)	50 g	10 min	2.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
05	Ale	Dry	1 g	2x