

## Pseuduś wersja nr 3

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **56**
- SRM **4**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **50 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	7 kg (100%)	82 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	9 %
Boil	Lublin (Lubelski)	30 g	30 min	4 %
Aroma (end of boil)	Hallertau Blanc	30 g	10 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Lutra	Ale	Slant	160 ml	---