

## ZWIK Lager nr 2

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **74**
- SRM **4.5**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **19.2 liter(s)** of strike water to **57C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (100%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum szyszki świeże mrożone	30 g	60 min	13.5 %
Aroma (end of boil)	Lublin (Lubelski) szyszki	50 g	10 min	4 %
Boil	Marynka szyszki	20 g	60 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa w34/70	Lager	Dry	10 g	Gozdawa