

**111111**

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **30**
- SRM **5.1**

### Batch size

- Expected quantity of finished beer **15.2 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **20.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **59.9C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **25 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **7.1 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (80%)	80 %	4
Grain	Monachijski	0.5 kg (10%)	70 %	15
Grain	Briess - Wheat Malt, Red	0.5 kg (10%)	70 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	40 g	60 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	40 g	15 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
gozdawa old german	Ale	Dry	10 g	---