

## Nic

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **39**
- SRM **3**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **3 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **28.6 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.9 liter(s)**

### Steps

- Temp **64 C**, Time **15 min**
- Temp **70 C**, Time **45 min**

### Mash step by step

- Heat up **9.3 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **45 min** at **70C**
- Sparge using **23 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.7 kg (100%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Uwodnione