

## Bitter #1

- Gravity **13.1 BLG**
- ABV ---
- IBU **27**
- SRM **9.4**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **3 %/h**
- Boil size **40.4 liter(s)**

### Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.3 liter(s)**
- Total mash volume **36.4 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **27.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **75C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **40.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (44%)	80 %	5
Grain	Strzegom Wiedeński	4 kg (44%)	79 %	14
Grain	Strzegom Karmel 150	0.6 kg (6.6%)	75 %	150
Grain	Wędzony bukiem Viking Malt	0.5 kg (5.5%)	80 %	10

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	80 g	60 min	4.6 %
Boil	East Kent Goldings	20 g	10 min	4.6 %
Boil	Lomik	15 g	10 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
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Fining	Whirfloc	1 g	Boil	15 min
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