

## Ordinary bitter

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **10.6**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **11.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (76.9%)	80 %	5
Grain	Caramel/Crystal Malt - 120L	0.4 kg (10.3%)	72 %	160
Grain	Strzegom Monachijski typ II	0.5 kg (12.8%)	79 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	8.8 %
Boil	Marynka	10 g	20 min	8.8 %
Boil	Marynka	30 g	0 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale