

## bitter 2.0

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **38**
- SRM **6.2**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **34 liter(s)**
- Trub loss **5 %**
- Size with trub loss **35.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **43 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **0 min**

### Mash step by step

- Heat up **19.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **75C**
- Sparge using **29.8 liter(s)** of **76C** water or to achieve **43 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (75.8%)	85 %	7
Grain	Caramunich® typ I	0.5 kg (7.6%)	73 %	80
Grain	Weyermann pszeniczny jasny	0.5 kg (7.6%)	80 %	4
Grain	Monachijski	0.5 kg (7.6%)	80 %	16
Grain	Biscuit Malt	0.1 kg (1.5%)	79 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook pl	55 g	60 min	9 %
Boil	Cascade PL	15 g	15 min	5.2 %
Boil	Styrian Golding	5 g	15 min	3.6 %
Boil	Styrian Golding	25 g	5 min	3.6 %

### Yeasts

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