

## 11A. ORDINARY BITTER

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **32**
- SRM **6.2**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.42 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **20.9 liter(s)**

### Steps

- Temp **66.5 C**, Time **60 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66.5C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3 kg (77.9%)	81 %	6
Grain	Karmelowy Czerwony	0.35 kg (9.1%)	75 %	59
Grain	Barley, Flaked	0.3 kg (7.8%)	70 %	4
Grain	Biscuit Malt	0.2 kg (5.2%)	79 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	30 g	60 min	4.5 %
Aroma (end of boil)	Fuggles	30 g	15 min	4.5 %
Whirlpool	Fuggles	40 g	15 min	4.5 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Water Agent	CaSO4	2 g	Boil	60 min
Water Agent	CaCl2	1 g	Boil	60 min