

## Bitter #3

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **35**
- SRM **9.9**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **9.7 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **7.5 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **0 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	1.7 kg (79.1%)	83 %	4
Grain	Biscuit Malt	0.2 kg (9.3%)	79 %	45
Grain	Słód Caramunich Typ II Weyermann	0.1 kg (4.7%)	73 %	120
Grain	Special W Malt	0.1 kg (4.7%)	65.2 %	315
Grain	crystal chateau castle malting	0.05 kg (2.3%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	11 g	60 min	12.4 %
Boil	Saaz (Czech Republic)	15 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1318 London Ale III	Ale	Liquid	50 ml	Wyeast Labs