

# Bitter

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- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **35**
- SRM **9.8**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **0 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **77C**
- Sparge using **24.9 liter(s)** of **76C** water or to achieve **34.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter castle malting	4 kg (85.1%)	83 %	4
Grain	Caraaroma	0.2 kg (4.3%)	78 %	400
Grain	Biscuit Malt	0.2 kg (4.3%)	79 %	50
Grain	Crystal castle malting	0.2 kg (4.3%)	74 %	150
Grain	Słód Caramunich Typ II Weyermann	0.1 kg (2.1%)	73 %	120

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	15 g	60 min	12.4 %
Boil	Fuggles	30 g	30 min	5.9 %
Boil	East Kent Goldings	20 g	15 min	6.3 %