

# Bitter FM11

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **30**
- SRM **11.6**
- 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 liter(s) / kg**
- Mash size **7.9 liter(s)**
- Total mash volume **10.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **7.9 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 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	Simpsons - Maris Otter	2.1 kg (79.5%)	81 %	6
Grain	Oats, Flaked	0.22 kg (8.3%)	65 %	2
Grain	Simpsons - Crystal Medium	0.22 kg (8.3%)	74 %	300
Grain	Cookie VM	0.1 kg (3.8%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	10 %
Boil	Saaz (Czech Republic)	15 g	5 min	3.5 %