

Bitter FM11

- 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 % |