

Bitter

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **33**
- SRM **6.2**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **15 min** at **78C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|------|
| Grain | Warminster - Pale malt | 3.2 kg (71.1%) | 81 % | 4.5 |
| Grain | Warminster - English Caramalt | 0.8 kg (17.8%) | 75 % | 64.6 |
| Grain | Corn, Flaked | 0.25 kg (5.6%) | 80 % | 0.93 |
| Grain | Barley, Flaked | 0.25 kg (5.6%) | 70 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Target | 35 g | 75 min | 8.2 % |
| Aroma (end of boil) | Progress | 30 g | 5 min | 5.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |