

BITTER

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **27**
- SRM **11.5**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

Steps

- Temp **55 C**, Time **1 min**
- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|---------------|-------|------|
| Grain | Pale Ale Best | 4 kg (88.9%) | 80 % | 6 |
| Grain | Carapils Best | 0.2 kg (4.4%) | 75 % | 60 |
| Grain | Carahell Best | 0.2 kg (4.4%) | 75 % | 30 |
| Grain | Carafa II Best | 0.1 kg (2.2%) | 65 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 30 g | 60 min | 5.7 % |
| Boil | East Kent Goldings | 30 g | 15 min | 5.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------------|------|-------|--------|-------------|
| Wyeast - 1728 Scottish Ale | Ale | Slant | 200 ml | Wyeast Labs |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|-------|
| Fining | Whirlfloc T | 1.25 g | Boil | 5 min |