

## Scottish Ale

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **8**
- SRM **16.7**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.32 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15.6 liter(s)**

### Steps

- Temp **70 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **77.5C**
- Add grains
- Keep mash **70 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                           | Amount         | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Simpsons - Golden Promise      | 2.8 kg (77.8%) | 81 %  | 4   |
| Grain | Caramel/Crystal Malt - 120L    | 0.5 kg (13.9%) | 72 %  | 236 |
| Grain | Brown Malt (British Chocolate) | 0.2 kg (5.6%)  | 70 %  | 128 |
| Grain | Chocolate Malt (UK)            | 0.1 kg (2.8%)  | 73 %  | 887 |

### Hops

| Use for | Name | Amount | Time   | Alpha acid |
|---------|------|--------|--------|------------|
| Boil    | east | 30 g   | 60 min | 2 %        |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Fermentis  |