

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 |