

# SCOTTISH ALE

---

- Gravity **11.4 BLG**
- ABV ---
- IBU **16**
- SRM **17.6**

## Batch size

- Expected quantity of finished beer **160 liter(s)**
- Trub loss **3 %**
- Size with trub loss **164.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **5 %/h**
- Boil size **198.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **136.8 liter(s)**
- Total mash volume **167.2 liter(s)**

## Steps

- Temp **68 C**, Time **75 min**

## Mash step by step

- Heat up **136.8 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **75 min** at **68C**
- Sparge using **92.5 liter(s)** of **76C** water or to achieve **198.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Golden Promise	24.8 kg (81.6%)	81 %	6
Grain	Crystal Malt	4.8 kg (15.8%)	75 %	160
Grain	Chocolate Malt	0.8 kg (2.6%)	60 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	200 g	60 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Culture	100 g	Safale