

# Scottish Ale

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- 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