

# Scottish Ale

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **26**
- SRM **15.8**
- Style **Scottish Export 80/-**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **35.2 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **24.9 liter(s)**
- Total mash volume **30.4 liter(s)**

## Steps

- Temp **22 C**, Time **0 min**
- Temp **31 C**, Time **20 min**
- Temp **68 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **24.9 liter(s)** of strike water to **22.2C**
- Add grains
- Keep mash **0 min** at **22C**
- Keep mash **20 min** at **31C**
- Keep mash **80 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **35.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Golden Promise	3.5 kg (63.3%)	81 %	4
Grain	Simpsons - Maris Otter	1 kg (18.1%)	81 %	6
Grain	Caramel/Crystal Malt - 120L	0.7 kg (12.7%)	72 %	236
Grain	Viking Wheat Malt	0.2 kg (3.6%)	83 %	5
Grain	Chocolate Malt (UK)	0.13 kg (2.4%)	73 %	887

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	8 g	60 min	15 %
Boil	East Kent Goldings	37 g	60 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	150 ml	Fermentum Mobile

## Notes

- <https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=GXKCXX9>  
*Jun 8, 2017, 9:37 AM*